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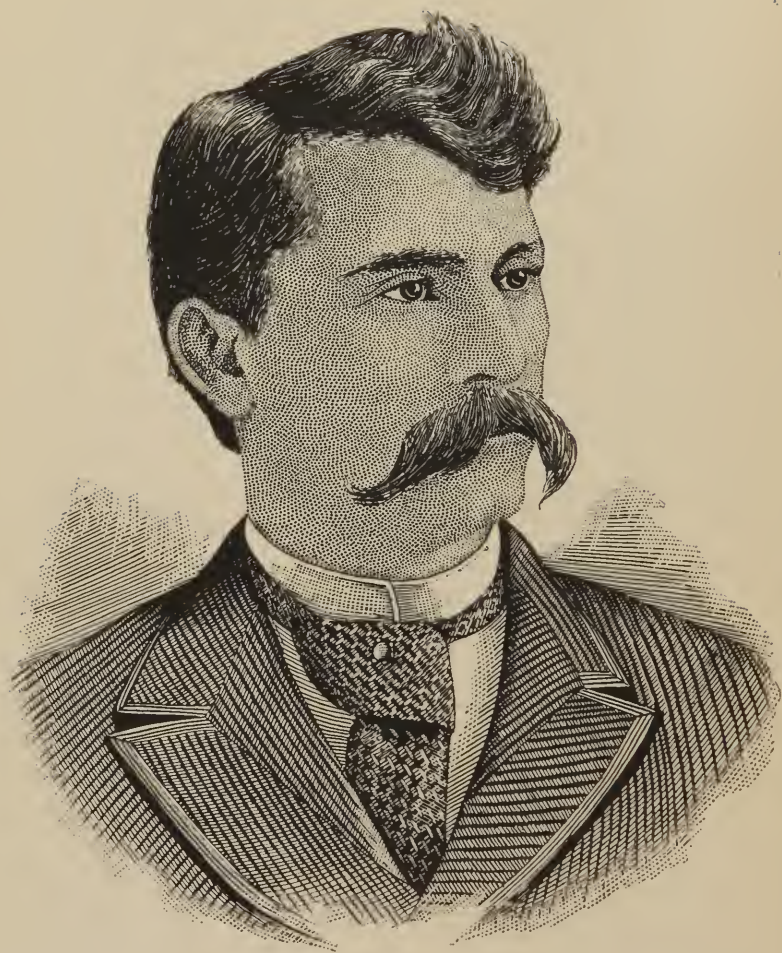


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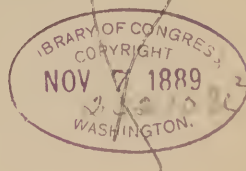
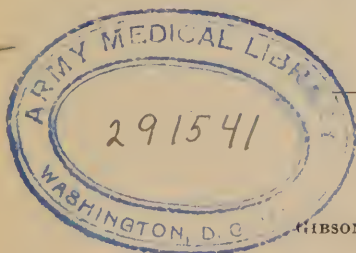
THE COMPLETE FAMILY DOCTOR

WRITTEN BY

A. L. SABIN, M. D.

WITH LOYALTY AND LOVE FOR THE DIFFERENT SCHOOLS
OF MEDICINE; BUT WITH GREATER LOYALTY
AND LOVE FOR THE PATIENT.

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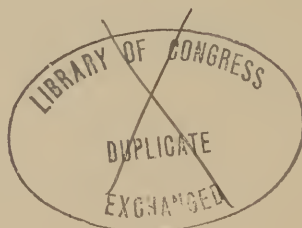
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NOTE.

This book is written in response to numerous calls from my patients who reside over a wide stretch of territory, and who could not at all times consult with me about their cases without the loss of time and expense of travel in coming to see me. And many who have attended my course of public lectures upon the subjects of Anatomy, Physiology, the Eye and Ear, Materia Medica, and the Practice of Human Medicine have been very desirous to secure the results of my practice and experience in a permanent form. Hence, I finally decided to write a book, giving to the people at large the benefits of the vast improvements and discoveries which have been made in the practice of medicine in the last few years.

The last five years have probably developed more valuable discoveries in medicine and surgery than the average century since the study of medicine was first commenced.

The discovery in the last few years that nearly all diseases are caused by living germs taken into the body, has created a vast revolution which amounts to a distinctive era in medical practice, and these results have not heretofore been placed before the people in the shape of a family practice, but they have been kept altogether within the ranks of the medical profession, and the claim is commonly made by the physician that the producing germs of disease are so intricate and minute that the non-professional man cannot sufficiently investigate them so that the knowledge which he obtains will be of any practical importance to

him. While their claim may be true, yet it does not interfere with the fact, that the *scientific man can lay before the common people the results of his investigations in a perfectly plain and simple manner, so that all can use them with the greatest ease.*

This I fully trust has been accomplished in the following pages.

THE AUTHOR.

PREFACE.

In presenting this little work to the public the Author has constantly kept in view the fact that a grain of truth is of more practical importance to a sick man than a volume of meaningless terms and medical phrases, which are often more intended to confuse the reader than to enlighten him, and are designed less to assist him than to inspire the ignorant with a belief in the great learning of the author. At least as much could be inferred from the ponderous size of books which have gone out as so called "Family Physicians."

The most casual observer knows that one who is not engaged in the practice of medicine has neither time nor inclination to read a great many pages to secure a few facts which may apply to his case. Even the busy physician (and he is nearly always the best) prefers those authors who express their ideas in the fewest and plainest words. He cares nothing for spread-eagle rhetoric or pretentious platitudes of language. All he wants are facts, plain, direct, hard-hitting facts, facts which are stated in the fewest, plainest words, for then can he best remember them and the most readily use them.

The Author has strictly adhered to this rule in the following pages, and has carefully refrained from anything which could confuse the mind of the reader and divert it for a single moment from the one great object of his search, viz: *a remedy for his ills*. The description and treatment of diseases, as herein given are so plain that they do not require a medical education to understand them. And these facts will be found reliable. They are all *life leaves* taken from *actual experience* in the hospital, the clinic, and at the bedside. They can be used *with confidence* in the hour of disease.

This book is not filled with those hackneyed humbugs known as "Domestic Remedies," which any grandmother can use without the aid of doctors or books. It contains

the *central germs* of scientific practice from the highest standpoint which the Author is able to present, and in this regard is different, so far as the Author is acquainted, from any work which he knows to have been sold as a family practice. It having been the practice of authors to either furnish the people an absurdly difficult or a worthless treatment, still leaving the greater, or, at least the *better* part of medical practice, locked up in the brains of the physician which the people are compelled to pay *exorbitant prices* to secure.

No treatment will be presented in this work which has not endured the test of time and secured the sanction of success. This work is *entirely different*, (so far as the Author has observed,) from any "Family Practice" ever offered to the world, inasmuch as it consists of a complete blending of the five great schools of practice, viz: The Allopathic, Homeopathic, Eclectic, Physio-Eclectic and Hydropathic.

The Author confesses no allegiance to any school but the *school of Nature*. Whatever acts in harmony with the natural laws of the human body as proven by many years of experience is here used regardless of any opposition or persecution which may be used against it by any of the different schools of medicine whose *pet hobbies* may have been unceremoniously laid aside. It has not been the Author's aim to conciliate medical societies and combinations. His sole aim has been to *save the patient*. The heartless opposition of different schools of medicine—the desire to master and subdue all other schools has in thousands of cases made them utterly regardless of the welfare of the patient. When asked what he would do in a given case by the Author, a popular physician said, "I would lose my patient before I would violate the teachings of my school, even if I knew the teachings of another school would save him."

The Author regards such a course and such a practice as that given above as *little better than murder*, and he regards it as one of the greatest duties of his professional life to throttle such practices in their stronghold.

While the true physician owes a loving respect to the

alma mater which first instructed and made it possible for him to become a scientific physician, his highest allegiance to the poor sufferers who are thrown under his daily care for medical treatment.

When the Author first commenced the study of medicine he was an enthusiastic devotee to a single school of practice. But when coming face to face with the grave responsibilities of his profession he soon discovered that *prejudice would not cure the sick*, and that search where-soever he might that even then he was not too well prepared to cope with the grim monster, disease. And, oh! what a precious discovery was this to him. He has been repaid a thousand times for his greater expense and multiplied labor in searching through the archives of every school of medicine by the looks of love and the undying gratitude of those he has saved, besides a competent fortune which the poor sufferers were only too cheerful to bestow upon him to help him on in his great life work, viz.: to do what he could to reform medical practice and rescue the perishing.

The recent discoveries of medical science have been quite as marvellous as those made in any field of science. Medical works written a few years ago are therefore necessarily much behind the times.

As time advances medicine is constantly becoming a more humane, a more conservative, as well as a far more definite and useful science; and this is owing largely not only to the discovery of new and useful remedies, but to an investigation and discovery of the various *causes* of diseases. A medicine when taken into the human system can have but one of two actions, viz: a right action or a wrong action, and it can never have the right action except when it is prescribed for the condition that exists at the time the prescription is given. Hence the great necessity of knowing the exact cause of diseases.

Many diseases which have hitherto been looked upon as accidental in their origin have been traced to living germs, either animal or vegetable germs which are so small as to have escaped discovery by the unaided eye, but which

have been brought to light by the powerfully magnifying influences of the microscope.

Thus has a new world been brought to light, a flood of information which has shown the utter futility of old methods of treatment in a vast number of cases.

In a disease wherein a living germ is found to be the cause, a double problem presents itself to the sufferer, viz: he must find a remedy, or set of remedies, which will not only *kill the living germ*, but which at the same time will not injure the system, but will on the contrary help to build it up and repair the damage already done. This has been accomplished in many cases, and in the treatment given in the following pages, this indispensable fact has been constantly kept in view; and in this last regard we claim a superiority over works which were written prior to these priceless discoveries. The domain of medicine is so great that doubtless there will always be something left to learn even by the most learned observers.

Hence we have preferred in the present work rather to adhere to *established facts* than to worry our readers with vague and unproved theories. The Author chooses rather for his work to be a guide to the sufferer in the hour of disease, than for it to be a jumble of half developed theories admired only by the pedant.

Let the reader take particular notice that this work not only treats of those ordinary complaints known as *acute* diseases, but it treats of *chronic* diseases and their *cure* as well. This latter phase of the work alone will make it worth hundreds of times its cost to the average purchaser. The Author has fully resolved that in the following pages he will hold nothing back, but that he will fully yield up to an afflicted world the professional knowledge upon which he has relied for success; and he will leave it to his thousands of friends to say whether or not this has been of the most gratifying character.

It is not expected that this work will do away entirely with your family physician. While it will undoubtedly save many times its price to those who follow its teachings there will be times when the intelligent aid of a skillful

physician will be needed. But books of this character will certainly weed out the great standing army of quacks that infest nearly every hamlet, and village, and city, so that the practical intelligence of the people will form a perpetual bar against their being imposed upon by ignorant and designing shysters who come to the sick room in the guise of physicians.

If there is one business responsibility in life more sacred than another, next to the sowing of the "precious seed of the Gospel," it is the honest discharge of our duty in the care and treatment of the sick. There is but one life to live here. Health lines the pathway of life with the lily and the rose, while overhead the bow of promise lifts its golden arc of hope. While disease is a bitter in every cup of joy, a pall on every hope in this world, and leads us to an untimely grave surrounded by the despairing blackness of funeral gloom, hence the vast importance that we should be fully prepared to contend against the ravages of so terrible a scourge, and this, too, at only a moderate expense. How many poor families have, alas! become bankrupt, and given up their homes to pay an exorbitant doctor's bill, whereas had they but possessed such knowledge as presented in this work nearly all this expense could have been avoided and their fortunes have been saved from financial wreck.

One department of this work is devoted to the general principles of medicine, which all should carefully read and understand. This will be made as brief as possible. Only that which is indispensable will be given, so as not to weary or confuse the reader. The reader should become *thoroughly grounded* on these general principles. The general principles of medicine sustain precisely the same relation to him who would prescribe medicine, that the compass does to the mariner in mid-ocean. They are his constant guide in every disease. If he becomes thoroughly acquainted with these he can prescribe intelligently for almost any disease without knowing the name of the disease. For let it be remembered that the true physician prescribes for conditions and not for names. The same

condition of pulse or skin, or tongue, etc., often occurs in widely different diseases and wherever met generally calls for the same remedies.

Another department treats of diseases in general, such as fevers, diseases of the lungs, diseases of the digestive organs, kidneys, bladder, skin, nervous system and blood, etc., etc.

The diseases of females from infancy to old age will form another part, and another part will be devoted to the care and treatment of infants.

While I know that the practice laid down in this book is such a complete blending of the treatment of all schools that no one of them can lay claim to it, on this account it will doubtless meet with more or less persecution from all, inasmuch as it differs from them all. Yet I send it out to the afflicted with much joy, knowing as I do the great efficacy of its teachings, and believing as I do that it is destined to be the best friend of many a poor sufferer in the trying hour of disease.

May God add his blessing and grant that it may be the happy means of saving many a precious human life.

With deepest sincerity,

Yours for humanity's sake,

THE AUTHOR.

The Complete Family Doctor.

HEALTH.

Health exists when all portions and organs of the body carry on their functions in a natural and harmonious manner. Any deviation from this constitutes disease. "Health is *right* life and disease is *wrong* life." Disease is not an entity nor malignant spirit, as was supposed by the ancients, which only the wizard, or the priest, could remove by exorcising the same and expelling it from the body; but it always consists of some deviation from the natural condition of the tissues, or organs of the body, which interferes with the purpose for which they were created.

The discovery of the above fact was a most important aid to the progress of medical science. Men began to study the different parts and organs of the body, and to study remedies which would act favorably upon them when they became diseased, by removing the *cause* of the disease which was, as a rule, some poison in the system, and also remedies which would aid nature in building up the system after the cause was removed. Remedies alone can never cure disease. Their only office is to aid nature in throwing off disease. No drug can be called a *remedy* unless it does this. All so-called medicines are not remedies. Any drug which does not act in harmony with the system is a poison, because a poison is that which, when introduced in the body, either disorganizes its structure or interferes with its natural working. The same drug might at one time act as a remedy and at another time as a poison. This depends entirely upon the action which the system requires to be exerted upon it at the time the drug is administered. A relaxing physic given to a man already suffering with a watery diarrhoea would aggravate his disease, thus acting as a poison; and if carried far enough would surely kill the patient. Whereas, in constipation, the same remedy would

act in perfect harmony with the system by restoring its functions.

Thus it will be seen that the term poison is only a relative term. There is not a drug in the whole catalogue of medicines which may not at times be a poison to the system. On the other hand, there is not a drug in the materia medica which, if prescribed at the proper time, way and amount, is not a remedy for disease. While the foregoing statements are perfectly familiar to every intelligent physician, they will be news to many whose only medical education has been received from street fakirs, almanacs, or, what is but little better, from books which have been sent out as "Family Physicians" by men whose only object was to obtain the people's money. It has been the common practice of this class of shysters and charlatans to denounce a large portion of the remedies of the great and priceless materia medica as dangerous poisons and unfit for use. They have done this merely to pander to the ignorant prejudice which exists in the minds of many people upon this subject, so that they could dupe the unwary by selling them their own worthless wares. But inasmuch as the object of this work is to form a *reliable* guide to man in the hour of his extremity, no attempt shall be made to disguise facts. On the contrary, the best medicines shall be prescribed according to the proper principles of scientific practice.

The quantity of medicine prescribed will be as small as the different cases will possibly admit of, as the Author knows that a terrible amount of mischief has been done and many lives lost by giving too large doses of even the right kind of medicine. It is a very noticeable fact that many physicians have discarded remedies which were priceless for their value, because they never knew the proper size or amount of the dose in which they should be administered in order to have their proper effect. The Author has *experienced* in his own practice that one of the most marked defects in published medical works is the improper size of the dose there prescribed, many of which, if followed, would undoubtedly exert a poisonous effect upon the patient.

PART I.

GENERAL PRINCIPLES.

Under General Principles we shall consider some of the most practical points for the general public concerning *hygiene, general diagnosis, and therapeutics*. These subjects will not be treated of at such length as is customary in works on "Family Practice." I shall only give the *essential* points so that the patient can get at them with as little reading as possible. Much is often written in order to make a large book (which will sell for a handsome sum of money) that is of no practical importance to the general reader whatever. It only serves to confuse and weary him so that he really fails to get the *main facts*, which only are of any *practical service* to him. For who is to tell him out of the great jumble of statements which he reads, which ones apply to him, unless indeed he seeks the aid of some competent medical adviser, for whose services he must pay a good round fee? And possibly for the case for which he desires the information he has not even time to secure advice. Where then would be the value of such a work to him? The author prefers to make this a book *to use*, and not merely an ornament to the center table.

The first subject that we shall consider will be

HYGIENE.

By hygiene, we mean a treatise on those general laws of health which are necessary for the observance of all. In the following remarks the author will treat more particularly of hygiene, as adapted to the sick room. At the same time we shall give appropriate hints to those who are well, as to how to preserve their health.

AIR.

Air is composed of seventy-nine parts of nitrogen, twenty-one parts of oxygen, with five per cent. of carbonic

acid, with a varying quantity of watery vapor and some traces of ammonia.

As discharged from the lungs it is discovered to have lost oxygen and to have taken on an excess of carbonic acid and watery vapor, as well as traces of organic matter. The oxygen, which the blood through the agency of the lungs absorbs from the air, is absolutely necessary to the maintenance of life. The amount of oxygen consumed by a given individual is, as a rule, the measure of his bodily and of his brain force. Oxygen is very marvelous for its energizing and life-giving influence. It is the agent, which, coming in contact with the dark, venous blood of the lungs, changes it to a bright scarlet color. In other words, it revitalizes the blood which has gone the rounds of the circulation, coming back loaded with poison from the broken down and worn out tissues of the body in its every part. A person of average weight requires about two and one-half pounds of oxygen per day, or a volume about equal to eight times the size of the human body.

The lungs throw off about two and three quarter pounds of carbonic acid daily, besides large quantities of watery vapor, and quite an amount of organic matter. Carbonic acid is a deadly poison. It is supposed to be derived from the *detritus* of the broken down tissues of the human body, which have served their purpose and are cast off in this manner with every movement of respiration. To know its poisonous character we have only to note the fact that to miss a few breaths, or respirations, means death. This is owing to the fact that the poisonous carbonic acid and watery vapor and broken down organic matter are constantly accumulating in the system, and that it has only one means of escape, viz. : by the lungs. It can only make an escape through the thin membrane of the lung cell by some other agent taking its place, and that agent must have a stronger affinity for the blood than it possesses itself, otherwise the new agent could not take its place. The only agent in nature which possesses this superior affinity is oxygen, and fortunately, by a wise provision, this is the one thing needful to replenish the impoverished blood. The purer the air

the more oxygen it contains ; hence the necessity of pure air. Should a person remain in a hermetically sealed room the oxygen would be rapidly consumed, and the air in turn would be rapidly saturated with carbonic acid, organic matter, and watery vapor, so that it could not support life.

As a rule the air in the room of the sick should not be cold. It must never be cold enough to produce a chilly sensation to the patient. Whenever a chill exists under any circumstances it indicates a recession of the blood from the extremities to the vital centers of life, which may lead to congestion and inflammation. The temperature of the air can be regulated by keeping a warm fire in the room, and allowing a door, or window, to be partially open. In hot weather no fire is needed. The main precaution that must then be exercised is to not let a draft of air blow upon the patient. Let us summarize: The patient must have plenty of fresh air, but *he must not be chilled*. Many patients with consumption are instructed by their medical advisers to go to the mountains. This will do in the early stages of consumption where there is not too much of the lung space taken up with tubercles. But where a large portion of the lung cells are occupied with tubercles there is not a sufficient quantity of oxygen in each respiration of rarified atmosphere of the higher altitudes to furnish a sufficient quantity of oxygen to aerate the blood. They will soon discover this by smothering spells and an increased shortness of breath. An early return to lower altitudes where there is more oxygen to the cubic inch of air taken into the lungs is their *only hope* of life. When patients arrive at this stage of consumption they must rely upon other means of treatment. Some valuable hints of treatment will be given in their appropriate place in this work.

Sleeping rooms should always be well ventilated. Where this cannot be done without chilling the sleepers, a fire should be kept in the room over night to warm and dry the current of air as it passes through the room. I will close this part of the subject by saying that the air should be kept so fresh in the apartments of both well and sick as to

prevent all impurity of odor. In other words, so that the air will smell sweet and pure.

SKIN.

The skin is the principal seat of the sense of touch, and is a very important excretory and absorbent organ. It is of the highest importance, not only to maintain health but to regain it in sickness, to keep the skin in a healthful and active condition. Next to the lungs it is the most important excretory organ of the body. The skin is furnished with a vast amount of perspiration tubes which are constantly carrying off large quantities of poison. These are a natural drainage to the human body. It is estimated that could they be placed in a single line that they would measure *twenty-seven miles* for the average man. So important are they that it is estimated that were the whole surface of the body furnished with a coat of impervious varnish that the person so varnished could not live to exceed three hours. Hence, we observe the very great importance of paying strict attention to this most important organ.

The skin should be bathed regularly. Two extremes are to be avoided, viz.: not bathing with sufficient frequency and bathing too often. The habit which some people have of taking a thorough bath of the whole person daily is doubtless pernicious to health, while others permit the health to be injured by not bathing often enough. A thorough bath of the whole person once a week, washing the feet three times a week, is all that is ordinarily necessary. The body should be thoroughly rubbed after each bath with a rough towel. Neglecting to bathe the skin properly is doubtless a fruitful cause of disease. While in many cases it may not be the *primary* cause of a disease, the *poisons* retained in the system by neglecting to keep the pores of the skin open, doubtless often lead to grave complications, if not fatal consequences. The different methods of bathing in different diseases will be considered under their appropriate heads.

FOOD.

There are certain rules and regulations regarding our

food which are necessary to be observed. Not only the quantity but the quality of the food required in sickness is widely different in most cases. We will observe in a general way that food, in order to be healthy, must be gotten up in a *palatable* manner. Foods which are repugnant to the taste do not, as a rule, stimulate the healthful action of the glands of the mouth and stomach, so that they will excrete the proper digestive fluids in sufficient amount. The taste acts as a sort of a guard to the stomach to prevent indigestible substances from being taken into the stomach. It must not be inferred from this that all things that taste well are easily digested. For such is not the case. Experience by testing any article of diet in one's own case is the only infallible method of knowing whether or not it will agree with his own stomach. Ordinarily persons should eat those things which experience has proven to agree with them. Late suppers should be avoided. As a rule persons should not retire for about three hours after eating supper. The articles of diet for the closing meal of the day should be light and easy of digestion. But little if any meat should be used for supper. As a general thing all kinds of pastries are to be avoided. They are an unnatural food as well as heating to the stomach, and difficult of digestion, and serve but a poor purpose in the nutrition of the body. Spices are also unhealthy to the stomach. In modern practice the feeding of the sick ranks in importance with the proper administration of medicines.

In the feeding of the sick three things must be constantly kept in view, viz.: we must avoid feeding them too much or too little; and, lastly, we must see that the kind and quality of the food administered to them is adapted to their disease and their condition. As much judgment is required in feeding the sick as in the administration of medicine. This subject will receive further consideration while treating of the different diseases. The feeding of the sick, I regret to say, has been woefully neglected, not only by physicians, but by authors on medical practice as well. It will be shown further on that proper diet is sometimes all that is needed to cure the patient; and it will, also, be shown

that patients are often punished for long periods of time by being placed upon an abstemious diet, thus taxing their fortitude to the utmost, whereas only a little of the right kind of medicine, skillfully prescribed, would speedily cure the patient, thus saving the patient, perhaps, months, or even years, of cruel self-denial. To the healthy the using of savory food is one of the greatest pleasures of life.

CLOTHING.

Clothing should be kept light and warm. Special attention should be given to keeping the throat and chest and back and extremities warm. By doing this from infancy to old age, many a grave disorder would be avoided, for those diseases which arise from taking cold are among the most fatal to the human family. Among them are found nearly every form of congestion, catarrh, bronchitis, quinsy, rheumatic fever, inflammation of the kidneys, bladder, brain, neuralgia, inflammation of the eyes and ears, lung fever, lock-jaw, besides many others. The greatest safeguard against taking cold is proper clothing, not only clothing worn on the person, but bed clothing as well.

The amount of clothing necessary varies with the individual, as some persons are strong, vigorous and full of blood, while others are lean of habit, thin skinned, and have but a small amount of blood, the latter requiring of course, more clothing than the former.

Linen and silk are, perhaps, as a rule, the best fabrics to be worn next to the skin in summer, and woolen goods in the winter. There are cases, however, where woolen goods are preferable the year round. There are many cases in which clothing of the proper character is indispensable to success in treatment, among which may be mentioned rheumatism and chronic lung troubles, etc. The clothes should always be worn loose. The proper kind of clothing will be pointed out under the head of the different diseases.

SLEEP.

“Natural sleep consists of a complete but temporary cessation of all the voluntary functions of the body, as well as

those of the rational soul." Sleep, although in a different way, is enjoyed, not only by all forms of animal life, but by plants as well. It is an indispensable condition to the perpetuation of all organic life in which cell activity exists. It is nature's method of rest and restoration, and its laws should be strictly observed; and he who would be perfect in mind and body *must* observe them. In the first place, night is the proper time for sleep. This is nature's time, *and no other time will do*. Those persons whose occupations keep them awake at night must inevitably suffer premature decay in every bodily function and even life itself is shortened. Sleep in the daytime may do for a time, but sooner or later a wrecked nervous system will pay the penalty of violated law.

The habit of keeping late hours is most pernicious to health. The practice which some young people have of almost constantly attending evening receptions and parties, where they are surrounded by a whirl of excitement, is one of the most fruitful sources of broken down constitutions in maturer years. Oh! ye midnight revelers in the ranks of wealth, well may ye envy the slumber which kisses down the eyelids of the horny handed son of honest toil—slumber sweet and balmy as an angel's dream!

A healthful person should sleep till he awakens of his own accord. Throw the alarm clock in the well, or hang it upon the moon; or whatever you do with it, be sure and put it where you will never be awakened from a much needed slumber by its frightful jargon any more.

Nature will waken you when she thinks you have had enough sleep. And when nature wakens you, you will be refreshed. You will then go out in your strength and vigor to not only meet but to master the difficulties which beset your daily labors. And oh! I beg of you to let me enter a plea for sleeping childhood; don't disturb it. Let it sleep as long as it wants to. Bless their dear young hearts! To rouse them from their sweet morning slumber is enough to mantle with frowns the brow of the guardian angel who kept watch over them during the silent vigils of the night. It is cruel. Let them sleep till nature's gentle whisper calls them

out to join their bright companions—the lark, the lily, and the rose. Childhood requires much more sleep than adult life. Let a man deny his children sufficient sleep, and he can only expect to raise half physical imbeciles and mental dotards. Look at those prison pens of infamy—the factories of England, which by their long hours of work, are robbing the little slaves of sleep, and are wearing their young lives out. Look at the result! A race of stunted pigmies in comparison to their more fortunate brothers, who enjoyed the comforts of a home in which they could get their morning nap. Let the child sleep during the daytime if it wants to. It always *needs* sleep when it *feels sleepy*. Don't expect too much of your children while they are young. Let them have a chance to develop. Then when they become grown they will be men—able bodied men—men who will be able with knightly ease to lift the mantle of business care from your shoulders, and smooth your pathway down the shady side of life.

In some diseases the patient sleeps too much, in others too little. One thing, however, must be constantly kept in view, viz.: that every moment of refreshing sleep which a patient gets in any prostrating disease, is one step on the road to a cure. Sleep in such cases must be encouraged if you would save the patient. The room must be kept at the proper temperature, and, also, be kept well ventilated at the same time. The loss of sleep for a protracted period of time in any disease always leads to great nervous prostration, and, oftentimes to raving delirium, or insanity. Sleep-producing agents must be used where sleep cannot be obtained without them. Among the best of these are opium, the bromides, chloral, cypripedium, hyosciamus, etc. But wherever it is possible sleep must be induced, or rather permitted by the removal of causes of disease, for when sources of irritation are removed from the nervous system it will naturally seek sleep of itself when it needs it.

EXERCISE.

Proper exercise is one of the most important factors of health. As a rule an organ is strong in proportion to the

healthful exercise which it receives. Acting on this principle persons with broken down constitutions have often begun a system of exercise and gymnastics till they have developed themselves into athletes far more powerful than the average man. Exercising a part causes a greater flow of blood to it. This increases its growth. Blood is the plastic material from which every organ and tissue of the body is originally made, and if a liberal supply of blood is habitually centered upon an organ it will certainly grow and become strong. It is of far greater importance to take proper exercise, and attend to suitable hygienic regulations in many cases of chronic disease than all the medicine in the world. For example, take persons with weak lungs, weak nerves, or a general debility consequent upon too close confinement, and exercise systematically taken is the *one best* course of treatment, bearing in mind always that the patient must exercise in pure air, so that when the lungs expand they will fill with life giving oxygen, which invigorates and renews, by its talismanic power, every rootlet and fiber of life. Permit me here to impress upon the reader, with all the earnestness that I can command, that proper exercise of the lungs is one of the chiefest factors of vigorous health.

For let me reiterate, as I remarked under the subject of "Air," that the measure of a man's power, either mental or physical, is in direct ratio to the amount of oxygen consumed. To practice with Indian clubs is probably the best method of exercise that we have to strengthen weak lungs. Walking, the bicycle, and horse-back riding come next. The boxing gloves may be used to great advantage, and the cross bar practiced upon. Let me caution those with weak lungs not to put off systematic exercise till the lungs are broken down. Meet any weakness here on the first sign of its approach.

In acute diseases accompanied by fever, or where localized inflammations of an acute nature exists, the patient should be kept very quiet, refraining from exercise till the diseased action is subdued. Patients often take on a relapse by going out too soon after typhoid fever, measles, scarlatina, mumps, lung fever, rheumatism, etc. One rule

must be adhered to strictly, viz.: that the patient must not be allowed to exercise when he is feverish. To close, let me reiterate that an organ, or part, as a rule, is made stronger in exact proportion to the amount of healthful exercise which it receives, and this applies to the mind as well as the body.

WATER.

Pure drinking water is one of the main essentials to good health. People are very often careless about this. Impure water is probably the chief cause of typhus fever, one of the most fatal of all the fevers. Wells and cisterns should be kept carefully cleansed. Water should never be allowed to pass through leaden pipes, as this is a fruitful cause of lead poisoning. Neither should water be allowed to stand in an open vessel in our dwellings for a considerable time before it is drank, as it then collects poisons and floating particles of dirt from the atmosphere, making it unfit for use. The pail of water with which the morning meal is prepared, should never be allowed to remain in the house over night. It should be drawn fresh from the well, or spring, in the morning. Water absorbs poisons and impurities very rapidly from an infected atmosphere, hence, should always be very fresh when used. Well, or spring water, is better for drinking purposes than cistern water. Water in passing through a healthy soil takes on those mineral salts which are to a marked degree the natural constituents of the human body, and the body requires a constant supply of them, which it cannot obtain from rain water. It has doubtless often been observed by the reader that his thirst would readily return after a drink of rain water, or even after a drink out of some wells. The reason is obvious, viz.:—because the water so drank did not contain the elements for which the system was making its demand in the shape of thirst.

Nurses should early begin to give water to children, as their piteous cries are often merely caused by a thirst which only a drink of good pure water can assuage. The cruel practice of refusing water to the sick is abandoned now, except in certain cases where a morbid craving exists, as in

cholera, cholera morbus, and sudden diarrhœa; in short in conditions where the stomach and mucus surfaces are already in a cold and relaxed condition. Persons should be careful when the surface is overheated to avoid drinking large draughts of cold water. Only a little at a time should be used at suitable intervals till the thirst is assuaged and the blood cooled. The habit of drinking large draughts of ice water where the person is very hot is liable to produce internal congestion, and is very dangerous to life. In extremely hot weather lemonade is a grateful and cooling drink. The sugar in the lemonade is a stimulant, and prevents in a marked degree, the harmful effects which are liable to ensue under the conditions existing in the system under the circumstances. The habit which some persons have of drinking large quantities, from one to two quarts, of water before meals is highly injurious and speedily deranges the digestive organs. Persons should not drink large quantities while eating. They should rely mainly upon the natural secretions of the mouth to moisten the food. An excess of drink at meals dilutes the secretions of the mouth and stomach to such an extent that it interferes with the digestion of the food. A bowl of warm soup taken at the beginning of a meal stimulates the flow of the gastric juice and is not inconsistent with health.

DRAINAGE.

The subject of proper drainage and sewerage has of late years received very marked attention. All poisonous and waste material should be removed from the vicinity of our dwellings, as the decay of such substances emits foul odors and gases which, when inhaled into the lungs, often injures the health, and many times adds fuel to epidemics which are very destructive to life. It may be set down as a *general rule* that proper sewerage and drainage of dwellings and cities is one of the most certain means of preventing such epidemics as diphtheria, typhus fever, cholera, etc.

Two main points must ever be kept in view in sewerage and drainage, viz.: that all offending and excrementitious materials must be speedily conveyed away from the vicini-

ty of our dwellings; and, secondly, that this must be done by avenues, or channels, which will admit of the best possible escape of that terrible poison—sewer gas. The habit which some have of allowing all the drainage from the kitchen-sink to flood some spot in the back yard, near the kitchen-window, is also a very dangerous practice, as the mixture of animal and vegetable matter thus thrown out soon decays, and emits deadly gases, and forms a breeding place for deadly bacteria and microscopic germs, which float in the air and are taken into the lungs while breathing, thus being introduced into the human system where, alas! they too often find prolific soil for their reproduction, leading to and forming the sole cause of many destructive diseases.

Let us summarize. The yard should be kept clean and dry from rubbish and slops. Privy vaults should either be kept thoroughly disinfected, or constantly washed by proper drainage from a stream of water passing through them. Perhaps the best method for disinfecting a privy consists in dissolving about two pounds of copperas to two pailfuls of water, and throwing this in the privy vaults once every one or two weeks. This will at once remove every bad odor and thoroughly disinfect the vault. Copperas only costs about five cents a pound, and if the above advice be followed it would save many doctor's bills during the course of a year. The thorough disinfection of cellars, privies and underground enclosures *should be enforced by law*. Cellars and all underground enclosures should be thoroughly aired daily, and kept as dry as possible. The author knows of one case where three persons of one family died of typhoid fever, resulting from poisons generated from a stagnant pool of water, which was allowed to remain under the dwelling! Can anyone after witnessing these terrible effects of improper drainage neglect to attend to so important a subject? Dampness under a dwelling always evaporates, and comes up through the floor, bringing with it its stagnant load of gaseous and bacterial poison, thus laying the foundation for doctors' bills, disease and death.

Ponds and marshy places which are near dwellings

should be thoroughly drained, as they are generally admitted to be a very fruitful source of malaria, which is one of the worst known poisons to the human family. Persons should, if possible, avoid living along the edges of marshes and streams which have broad marshy bottoms, or low lands adjoining them.

Where people live in such localities their doctor bills are very apt to take up a large portion, if not all of the profits of their yearly labors, if indeed they should (as they often do not) escape with their lives. The time of year that persons are most apt to be affected in such localities is in the latter part of the summer, or early fall, when the rank vegetation is beginning to decay ; and this is all the worse in the hot weather following a freshet. The Author has witnessed a terrible amount of suffering in such localities under the last mentioned condition. In closing this part of our subject we would suggest as a general rule that the health of a family, or community is largely in proportion to the attention which is given to sewerage and drainage. Let us insist that this is a subject which cannot be neglected with any reasonable degree of safety to health or life.

DAMPNESS.

Dampness of our living rooms, either of their walls, or of the atmosphere in them, or dampness of the clothes worn upon the body, or of the bed-clothes, is one of the greatest dangers to health.

Brick, or stone houses, are much worse to collect moisture than wooden ones. Wood is doubtless a much more healthy substance than either of the former from which to build a house. Walls of brick and stone often become so saturated with moisture that it is very difficult to dry them thoroughly. Unless the weather be very warm and dry, fires should be built in the living apartment in the morning, to dry out the air, and remove all moisture from the floor, walls and furniture. Neglect of this by teachers often results in children taking violent colds in the school room. The laws of health are something which every teacher should thoroughly understand.

Clothes after becoming wet should never be allowed to remain upon the body to dry. They should be removed as soon as possible, and the body thoroughly rubbed with a rough dry towel, and dry clothes substituted in their stead.

The habit which some have of allowing wet clothes to dry upon the body is very liable to lead to serious internal congestions, and is a fruitful source of distressing and dangerous maladies. Even where the clothes have become moist with perspiration through the day they should be removed at night, and dry ones substituted. As a rule it is always best to remove the clothing worn during the day when you retire at night, putting on a night shirt which has been thoroughly aired all day. This not only dries the body, but airs it, allowing all noxious effluvia that are retained by clothing to escape into the surrounding air, which effluvia is generally sufficient in quantity to impart a distinct odor to the surrounding air when the clothes are removed. If it were not a poison it would not be thus thrown off by the skin.

One thing which I desire to carefully impress upon the reader's mind is the great danger which arises to health from damp bed clothes. The man who makes it a habit to sleep between damp sheets is a walking advertisement for an undertaker. Beds used nightly do not, however, become as damp as those beds which are seldom used—"spare beds." The "spare bed" is one of the most deadly dangers which ever beset the journey of a traveler, or a visiting friend, for it is for their use it is kept. It is often kept in a room which is seldom ventilated, and whose gloomy walls are seldom lit up by the cheerful rays of the life-giving sunshine. Hence moisture accumulates till every part of the bedding is about as damp as if it had just emerged from a sweat bath. The moisture which always loads the atmosphere is rapidly absorbed by bedding upon the principle of capillary attraction.

The poor victim who is incarcerated between its mildewed and death-dealing folds may at least expect to pass a miserable night, if, indeed, he escapes catching his death of cold. The Author has had a bitter experience with "spare

beds." He came near losing his life by contracting a cold sleeping in the same. And he has lost his temper (which is not that of an angel) more than once by being compelled to wallow between a pair of damp sheets (which probably had not been aired for weeks or possibly months) from bedtime till morning, breathing their mildewed stench, knowing as he did so, that every inhalation which he took into his lungs was poisonous, and that his only hope of escape from disease was the speedy return of day, and that his native courage and common sense would, at least, not allow him to be caught in that bed again. Bed rooms and bed clothes should be frequently aired. I have seen the vapor arise from bed clothes, hung by the fire, (which had not been aired for quite a while) equal to the vapor from fabrics just wrung out of the wash tub. Damp clothing rapidly absorbs the heat of the body, chilling the wearer to the bone. Damp underwear is especially bad. Many people contract violent colds by allowing the feet to become, and remain cold, in consequence of dampness arising from perspiration retained about the feet by rubber, or waterproof boots, or shoes.

This is very injurious. The material of which boots and shoes are made should be porous so as to admit of the rapid evaporation of perspiration from the foot. The feet should be kept dry at all times.

SUNSHINE.

Sunshine exerts a life giving influence upon both animals and plants. It ranks in necessity next to water and air. Both animals and plants when deprived of it become pale, emaciated and weak. Being deprived of sunshine is one of the greatest drawbacks to an indoor life. But few persons can long endure a shady, confined life, and enjoy vigorous health. None of them, if they continue this kind of life, can live out their allotted time. The solar spectrum has revealed the fact that a ray of sunshine is composed of seven distinct colors, all mysteriously blended so as to give the unapproachable effect which is seen in the dazzling ray

of the sunbeam. Each of these rays of various colors have their own peculiar effect. So far as discovered the red and the violet rays have more to do than the others in the maintenance of organic life. Their influence is found to be very positive. The violet rays exert a powerful chemical and *disinfecting* influence while the red rays furnish heat. Every person should daily have the benefit of the *direct* rays of sunshine. As proof of this we have only to observe the terribly depressing influence of two or three consecutive days that are so cloudy as to totally obscure the direct rays of sunshine. It produces a very depressing influence which one cannot resist. The system becomes sluggish, and the temper morose and sullen. Energy is paralyzed, and the very wheels of commerce become clogged. As soon as the sky clears up, and the bright sun is permitted to send us its healing beams once more, business takes a new impetus, and everything is agog with energy and life.

All rooms of a house so far as possible should be daily exposed to the *direct* rays of the sun; *diffused* light is not sufficient. Old chronic cases of lung trouble, scrofula and disorders of the blood, etc., cannot be cured without the help of sunshine. I order such cases, where it is possible, to take sunbaths daily by basking for an hour or more in the direct rays of the sun. How often do we learn in the history of such cases that they have lived in dark, gloomy houses. Sometimes the rays of the sun are obscured by clustering vines of ivy, or woodbine, which completely shade them. These must be removed if you would cure the patient, as the patient must have sunshine in his apartment. The patient's bedroom should be situated on the side of the house where it can get the most sunshine. The covers of his bed should be turned down, allowing the direct rays of the sun to shine where he lies, from one to two hours daily.

The habit which some mothers have of carefully keeping their children out of the sun for fear of their becoming tanned is most pernicious to their health and development. It is the life of them to get tanned; the browner the better. I make it a special duty to have my children play in the sunshine, and their little ruddy, brown faces glowing with

health more than repays me a thousand times for any loss of beauty to their complexions.

The windows of dwelling houses should be large, and there should be plenty of them. The latest fad in building architecture in this country is to make the windows small, and but few of them. This is a step backward, showing a preference for a feudal age in which the inestimable benefits of proper ventilation and sunshine were comparatively unknown. Such a mode of architecture is on a par with that *most deadly* habit of tight lacing, which is merely a relic of the barbarous customs of hundreds of years ago, and is not one whit more justifiable, nor beautifying to the human form than the customs prevalent among the upper class of Chinese, of placing wooden shoes upon the feet of the child at two years of age to forever prevent the feet growing any more.

I trust that my remarks upon the subject of sunshine have left no vagueness, or uncertainty of my meaning, as to its great importance.

CLEANLINESS.

Cleanliness is necessary to perfect health. Not only cleanliness of the person, but of the house, and everything in it. Filth is a hydra-headed monster, reeking with vermin, bacilli and microbes. It furnishes the breeding ground for germs of disease, especially of that class which are the most deadly, and require the aid of the microscope to detect. Filth always leads to decay, and poisonous germs are the spawn of decomposition. When we remember that microscopic germs of disease are found upon the sides of the cleanest dish, what must we say for those dishes whose sides are never thoroughly cleaned ?

How many people are there who never thoroughly cleanse with *scalding* water, their dishes, buckets, churns, floors, windows, milk pans, clothes, etc. ? Those who do not are offering a premium on disease. Those who expect to eat their "peck of dirt," and keep their health while they are doing it, must take it in broken doses a long way apart. Butter, which is made from cream kept in filthy, impure pans

and jars, rapidly decays, and becomes putrid and offensive and loaded with poison germs which are the result of this decay, and are unfit for and dangerous to the stomach.

Wearing apparel, especially that worn next to the skin, should be frequently aired, and washed so as to not only rid it of dirt which it acquires from coming in contact with soiled objects, but to cleanse it from the foul excreta which it collects as it is thrown off from the body.

This excreta rapidly decays and forms a great source of danger to health as well as becoming very offensive to every one who comes in contact with the wearer. To prove this we have only to mention the disgusting odor which greets the nose when we enter a car load of emigrants of the lower class, or when we enter the hold of a ship that is filled with steerage passengers, who, as a rule, are made up of persons who pay but little attention to cleanliness of person or clothing. You have but to look into their sallow, expressionless, hardened faces to see the terrible effects of the filth and want of cleanliness.

It often happens that the garments they wear which receive filth from external sources, as well as from their bodies, are seldom if ever washed from the time they are first put on until they are worn out. Thus these poisons are absorbed, and re-absorbed into their systems, vitiating the blood, and with it the brain, and every fiber of life; souring their temper and leading to melancholy moroseness, which tends to crime. The only hope of rescuing these poor ignorant people is to first clean them up, as the terrible load of vile filth which they carry about them is constantly being absorbed into their systems, thus destroying the natural tone of the nervous system, and with it their buoyancy of disposition, and cheerfulness of spirit, without which reform is impossible. Filth and good morals, and the higher grades of intellect, don't harmonize and don't travel the same road.

Although not a medical subject, it might not be out of place to suggest here that if a young person desires to secure a partner for life from the better class of people, that cleanliness in person and all habits, is one of the strongest inducements which they could hold out to a sensible man or woman.

GENERAL THERAPEUTICS.

Under the head of Therapeutics, I shall explain the different *classes* of medicinal agents required in medical practice.

I hope that my dear readers will carefully study this part of our little work, as they will find every department here treated of very useful to them in the hour of disease. The object of this work is to help you, and our only possible hope of doing so is that you will carefully read, and if necessary, re-read its pages, so that you can remember what it contains.

I don't want you to read it casually and carelessly, for then it would be of little benefit to you; but I want you to *study* it carefully. If you don't do this for yourself, do it for your wife and family. There is no study short of religion which so richly repays the head of a family, or even a man who has no family, as the study of his own body with the diseases which accompany it and their appropriate cure. I remarked in an earlier part of this work that the general principles of medicine were as necessary to guide him who would successfully cope with disease as a mariner's compass is necessary to the sailor in mid-ocean, and such is truly the fact. You must not become wearied thinking that the facts are dry. They will be more than poetry to you in the hour of affliction, when yourself or dear ones are suffering from disease and threatened with death. No great good is accomplished without some labor.

Let me in substance repeat that it is not sufficient for you to read of the symptoms of a disease and its treatment as given in any medical work. You *must* be grounded upon *general principles* so that you can intelligently meet any complications which may arise (as they are always liable to do) during the course of a disease. These general principles will here be presented in a systematic manner, and as fully,

we trust, as is consistent with the interests of the *general public* for which this work is especially written.

First we will consider

THE DIFFERENT MODES OF USING MEDICINE.

The methods of using medicine which are practical for the general reader are: 1st. Applications to the skin. 2d. Remedies taken by the mouth into the stomach. 3d. Remedies introduced by the syringe into the rectum. 4th. Remedies introduced into the vagina in cases of diseases of females. 5th. Remedies introduced into the nose or lungs in the form of spray or powders inhaled; and 6th, drops, washes and salves used in the eye or ear.

APPLICATIONS TO THE SKIN.

Under this head we will treat of: 1st. Counter-irritants. 2d. Applications of Water. 3d. Applications of Dry Heat to the Surface.

COUNTER-IRRITANTS.

If you will notice carefully the structure of the term *counter-irritant* you will discover that its true meaning consists in one irritation set up in opposition to another irritation as a counter, or opponent, to it. Counter-irritation is a remedy for internal congestion, or inflammation from whatever cause. It acts by the external and artificial irritation (which is set up by the use of our medicinal agents) drawing the blood to the surface from congested centers within.

Congestion merely means the excessive flow of blood to some center. Congestion is due to many causes. It generally centers upon some of the weaker organs of the body which are adjacent to the producing cause. The producing, or exciting cause, may be external cold which causes a recession of blood to some internal or vital center, or it may be owing to exertion, which over exercise thereby weakens a part, thus allowing the part to relax, and the blood to flow into them in an unusual quantity, causing congestion; or it may be the result of violence, or blows. But whatever be the cause, it must be kept in mind that an excessive and unnatural flow of blood centers upon the part

which dilutes and weakens the blood vessels, and prevents the ready circulation of the blood in the part, which must sooner or later lead to such a stagnation resulting from non-aeration of the blood as will lead to decay. Hence, the urgent necessity of diverting the blood from congested centers at the earliest possible moment. We have several means at hand by which we can produce a sudden and powerful counter-irritation. Prominent among these may be mentioned the old and perfectly reliable remedy—a *mustard draught*. Let it be remembered in this connection that internal congestion of a suddenly dangerous nature always produces pain to a greater or less extent. The pains are generally severe. When the counter-irritant is applied, the gradual cessation of internal pain shows that the remedy is having its desired effect. Any counter-irritant applied for the relief of an internal congestion (and for ordinary purposes a mustard draught is much the best), should be kept over the part until decided redness of the surface is produced.

Chloroform is also an excellent counter-irritant for internal congestion accompanied by pain. The method of using it is as follows: Wet a piece of flannel as large as the palm of the hand with it, then place it over the part, after which place your hand over the flannel, and hold it there, confining the chloroform to the part till it burns so badly that the patient cannot endure it any longer, and then remove it. Repeat this at short intervals until the pain is relieved.

Counter-irritants are, also, of the greatest importance in the treatment of internal inflammations of every character. Among which we may mention inflammation of the lungs, liver, spleen, bowels, bladder, kidneys, stomach, spinal column, brain, throat, or any deep-seated localized inflammation. They are often of sovereign efficacy, also, in headache, neuralgia and rheumatism.

Let it be stated as a general rule that whenever there is deep-seated pain, congestion, or inflammation, that counter-irritants are always in order, and that mustard and chloroform are the best and simplest for general use. Should

either of them be kept on long enough to produce a blister, the blister must be carefully opened, allowing the water to escape from the blister, and then the parts should be thoroughly anointed with pure lard, imported olive oil, or cosmoline, then covered with a cloth saturated with the same substance. Should the inflammation from the blister be too severe, an elm poultice may be used until the inflammation goes down, then use carbolated cosmoline over the blistered surface until it is well. My method of making an elm poultice is, get powdered elm and mix it with cold water until it is about as thick as very thin mush. I mix a mustard draught in the same way. To apply either, I take a piece of cheese cloth, or old linen, or old muslin, twice as large as the surface which I wish to cover, spreading the mustard, or elm poultice, whichever I desire to use, over one-half of the cloth, then I bring the other half of the cloth back over the poultice. Thus, the poultice, or draught, is kept from coming in direct contact with the body. As a rule, however, I prefer to have the elm poultice come in direct contact with the body, without any intervening thickness of cloth, but the mustard draught may always have a thickness of thin cloth between it and the body. Blisters, as a rule, should only be employed over the seat of chronic enlargements and congestions, and they should always be under the care of a physician.

In chronic bronchitis, and chronic granular catarrh of the throat, pustulation is a very valuable form of revulsion, or counter-irritation. It may be produced by various agents. The one which I prefer is a combination of croton oil with other agents, which may be made as follows:

Take croton oil, two drachms,

Oil Turpentine, two “

Oil Sassafras, one “

Olive Oil, three “

Mix, and shake well before using. Rub over the affected parts two or three times a week, or just often enough to keep up a mild degree of pustulation and counter-irritation. The external applications must be discontinued as soon as the internal trouble is sufficiently modified or gives away.

Should the application of the croton oil compound produce a serious inflammation it is necessary to apply a liberal elm poultice over the inflammation until it subsides. It is well to open with a bright needle the white pustules which are produced by the foregoing compound. After the inflammation has gone down the parts may be kept anointed with cosmoline until they are healed.

PLASTERS, BANDAGES, LINIMENTS, ETC.

Medicines applied upon adhesive plasters are often of great value. Rheumatism about the heart is often very greatly benefited by the application of a Belladonna plaster. The same trouble is sometimes greatly benefited by putting on strips of adhesive plaster, crossing each other in every direction. Almost any of the various adhesive plasters are a valuable support to a lame back, or internal lameness at almost any point. The strapping of a strained wrist or joint at any point is a valuable method of relief. The addition of some stimulant, like capsicum, to an adhesive plaster often forms a mild and valuable form of counter-irritation where immediate results are not imperative.

A good rube-facient and mild counter-irritant for long continued use is a spice bag which contains one-half pint each of cloves, cinnamon, allspice, ginger and capsicum sewed into a flat bag. When required for use it is dipped in vinegar, or whiskey, and laid over the affected part. This is highly recommended by the great authority, Bartholow, professor of materia medica and therapeutics in the Jefferson Medical College, Philadelphia.

Turpentine stupes are sometimes used with excellent effect. They are made as follows: Several thicknesses of flannel are wrung out of hot water, and from five to fifteen drops of turpentine are sprinkled over it. It is then laid over the affected part, and a dry cloth pinned securely around it to keep it in place. This is a very active rube-facient, and must be watched to avoid blistering of the part.

Various liniments, also, act favorably at times as stimulants and revulsives on the surface of the body. The following formulas are good.

Tinct. Capsicum, one ounce.

Oil Turpentine, one ounce.

Spirits Ammonia, one-half ounce.

Chloroform, one-half ounce.

Alcohol, one ounce.

Mix and apply. If necessary to produce a speedy effect after rubbing on, apply a flannel and place the hand over this for a few moments, when intense heat and warmth of the part will be produced.

Or the following may be used where we desire a less speedy effect, and wish to keep it up for a longer period of time:

Tinct. Capsicum, one ounce.

Oil Turpentine, one ounce.

Spirits of Camphor, two ounces.

Spirits of Sulphuric Ether, one ounce.

Chloroform, one ounce.

Oil Sassafras, two drachms.

Alcohol sufficient to make eight ounces.

Mix, and rub on once in three to five hours, as needed, to keep the parts hot and stimulated.

This last will be found an excellent liniment in many cases of rheumatism, and in other diseases where we desire a steady stimulant and counter-irritant action. When it does not produce a decidedly stimulating and hot sensation this can always be obtained by wetting a piece of flannel with the liniment and laying it over the part, and holding the hand over the flannel so saturated, for a few minutes, to keep the medicine from evaporating.

This liniment will be found exceedingly valuable to relieve all deep-seated pains and neuralgias, headache, etc. A small piece of cotton thoroughly wet with it, and crowded into the cavity of a decayed tooth, will ordinarily stop the aching in a few moments. Should it fail a piece of sulphate of morphia, of the size of a grain of wheat, may be put on a piece of cotton which is saturated with the liniment, and after the cavity of the tooth is thoroughly cleansed, thrust deep into the cavity. If the nerve is exposed to the medicine the toothache will get well in a hurry. It is, also, a good

plan to wet a piece of flannel, placing it on the face over the affected part and holding the hand over it untill it gets so hot that you can endure it no longer. This will relieve the congestion of the affected nerve, and be a very important factor in the cure of this distressing affection.

This last direction might be followed with much profit in nearly all forms of headache and neuralgia, or as formerly stated, over any deep seated pain.

APPLICATIONS OF WATER.

Water is a very valuable agent in the treatment of many diseased conditions, as well as in the preservation of health, as before explained in this work.

Let the reader bear in mind that we are not Hydropathists, or water doctors. Owing to the fact that water has been of such sovereign efficacy in many diseased conditions, some ignorant persons and limited observers have constructed a practice which, like Nebuchadnezzar's image, possesses the strength of iron with the weakness of clay. But we are not thus to be carried away. We have had the good fortune to observe the various forms of medical practice used in diseased conditions of which we shall treat, and we prefer to only recommend such practice as experience and careful observation warrants. We shall endeavor very briefly to rather give the man of a sound judgment a *key* to the use of water in diseased conditions, rather than to attempt to give him detailed instructions for its use in every case which might occur in the great range of diseases of the human system which are practically infinite.

As to the external application of water, there are three great objects to be kept in view, viz:

FIRST—*The regulation of the temperature of the body.*

SECOND—*The regulation of the circulation of the blood.*

THIRD—*The transpiration, or throwing off of poisons by the skin and lungs.*

Let us consider first the

REGULATION OF THE TEMPERATURE OF THE BODY.

When very high fever exists from any cause it is neces-

sary to the welfare as well as life of the patient that it should be reduced. For this purpose we may use various means, among which water stands among the foremost.

Water may not only be used for any general fever of the whole system, but for any local inflammation as well.

Let me state it as a general rule that water when used to reduce temperature in general fever of the body should be used as cool as can be borne, and when used on a local inflammation should be used as *hot* as can be borne. My *experience* has fully borne out this rule.

To reduce the temperature of the body we may wrap a part, or whole of the patient's body, in a cool, wet pack (which consists of a sheet large enough to cover as much surface as we desire, dipped into cool or cold water, as circumstances may require). In doing this, however, we must bear in mind that no permanent chill must be admitted. If after we have wrapped warm, dry blankets, or comfortables, about the wet pack, the patient should continue to be chilly till the surface turns pale, and the lips livid and general shivering sets in; the patient must at once have the pack removed, and hot bottles and bricks, etc., and dry bedclothes be put about him till his natural heat returns, and this must be done *at once*. Should the patient be able to endure the cool wet pack he must not be left in longer than to reduce his heat to the natural temperature of the body. He must then be at once removed from the pack, and his body thoroughly rubbed with a rough, dry towel, and have all the bed clothes about him thoroughly dry. After which, if the wet pack has achieved its object, he will enjoy a warm sweat, and the ordinary course of medicine which is appropriate to his case may be continued. Should the wet pack thus fail to reduce his fever, producing copious perspiration, another pack may be used in the course of a few hours, until the desired reduction in temperature has been obtained.

This is an especially valuable method of reducing the temperature in children, where the fever runs so high that it does not yield readily to such medicine as their delicate systems are able to endure.

A cloth wrung out of cold water is an excellent application to a feverish head, also, as an application about the throat in diphtheria, and croup. It is also *the remedy* in inflammation of the bowels. The author's life was saved in this way after all other means that could be devised had failed.

The best after treatment of a sprain is to pour enough cold water upon it from a height of one or two feet to make it ache with cold, then dry it off thoroughly, and dress it in warm cloths, or flannels. Do this three or four times a day until the sprain is entirely well, and if it be in a joint, until the joint is thoroughly strengthened.

Cold shower baths in the morning, repeated two or three times a week, rubbing afterwards with a rough towel until the skin is red, are excellent for nervous people of sedentary habits. The person should only be exposed to the shower bath for a few moments, otherwise he is liable to become seriously chilled. If this bath is properly used the patient's skin will have a warm, pleasant glow afterwards, and the blood will circulate much more freely, and the general well-being of the patient will be materially promoted. The local shower bath is, also, of great value to paralyzed limbs, or stiffened tendons. It, as well as the hot bath, is often of great value to local inflammations.

Where there is inflammation about the brain, cold applications should be used to the head, and hot ones to the feet.

As a rule for a general bath of the whole person the author prefers water as hot as can be borne by the patient. The temperature of the water after the patient has entered the bath (which should never be below the temperature of the body when he enters it) may be raised by allowing some of the water to run out of the tub and hot water to run in until the water is as hot as he can endure. The patient should remain in the bath (according to his strength) from ten to twenty minutes, after which he must be thoroughly rubbed with a rough towel. The effect of such a bath is to throw the blood to the surface, and produce a free perspiration, thus throwing off poisons, and relieving internal congestion in a powerful manner. This form of bath is of

sovereign efficacy in all forms of fever in any stage where the patient's strength will admit of it. In all acute diseases the temperature of the room must be high enough so that the patient will not take cold when he comes out of the bath. It is also excellent in all chronic and blood troubles, such as rheumatism, scrofula, inflammation or congestion of the liver, jaundice, chronic peritonitis, bronchitis, catarrh, syphilis, pleurisy, hip disease, inflammation of the spine, etc., etc. This is an excellent remedy to break up a common cold. In this case after coming out the patient should use tonics and stimulants thoroughly, avoiding all exposures to cold.

Local hot baths to the feet and legs are, also, of the most marked service in many cases, and should not be forgotten, for by diverting a decided flow of blood to the feet they relieve congested organs above them in the body. These baths are of especial service to females when they catch cold, causing *suppression*, or when they desire to bring about the *periodic flow*. During and after these baths the patient should use stimulating teas, made of ginger, white root, pepper, etc., which will ordinarily cause free sweating of the whole body as well as stimulate the uterine organs to greater activity.

The pouring of hot water upon an inflamed part for a few minutes at a time, and repeated once in two or three hours, is the *most powerful method of reducing inflammation known*. The water must be as hot as *can possibly* be borne. This treatment is not applicable only over the extremities.

Injections of water into the vagina, as hot as can be borne are *extremely serviceable* in chronic inflammation of the womb. Not less than three or four quarts of water should be used at each washing, and it should be used three times a day.

Clothes wrung out of water as hot as can be borne are an excellent method of deriving the beneficial effects of hot water where we cannot, owing to the nature of the part, pour on the hot water. These form the *best local applications* in many cases to eyes suffering from severe inflam-

mation, or to inflamed ears, earache, neuralgia, headache, etc. They are also excellent applications over inflamed bowels, and over the ribs in pleurisy, etc. The cloths must be frequently changed and kept very hot. They should be kept covered outside with a dry cloth, so as to keep in the heat and steam. This is also the *best outside application* to an inflamed and swollen sore throat. If faithfully used it will save many a little one's life where other means have failed. The inflammation of a rheumatic joint is often quickly removed by the same means. If desired, medicines may be rubbed over an affected part before the hot cloths are used.

VAPOR BATHS.

Another highly valuable form of using water on the surface is in the form of vapor. The way to use it is as follows: Take a large pan, or basin, and put into it sufficient warm water. Place this under a cane bottom chair (if you have one), otherwise any common chair. Seat the patient in the chair. Then throw about him one or two quilts, or blankets, in such a manner as to cover himself, the basin and the chair completely; then put into the basin a hot brick, or stone, which will cause an intense vapor to rise from the water. This vapor must be all kept under the quilt which surrounds the patient's body his head must be left out in the open air. *Great care* must be used not to put the heated stone, or brick, into the water so rapidly that the steam, or vapor, which it produces will burn the patient. Should the hot stone, or brick, be accidentally dropped into the water, causing an intense volume of hot vapor which would burn the patient, the covers surrounding him must be at once lifted, allowing the vapor to escape. Several hot bricks, or stones, should be kept heated at a time, so that when the vapor is not sufficiently hot under the covering to keep the patient in a profuse sweat, another one can be put into the water at once, without allowing the patient to become cooled off.

The patient generally suffers from considerable of faintness which may be relieved by allowing him to drink

freely of cold water during the bath; also, by sponging his face freely with cold water.

Patients should be kept in the bath long enough to produce profuse perspiration for five or ten minutes.

Should the patient faint he must be dashed in the face with cold water, and the covers at once removed. The head should at once be placed on a lower level than the body, allowing the blood to flow to the brain. This last direction, viz: the dashing of cold water in the face, and placing the head lower than the rest of the body is applicable in all cases of fainting.

After being removed from the bath the patient should be thoroughly wrapped in warm blankets and comforters in bed, keeping up perspiration for one or two hours (if his strength will admit of it). After which he must be thoroughly rubbed with a towel, and his wearing apparel and bed clothes be perfectly dry. After this, remedies suitable to his case must be carefully used. The directions for remedies will be mentioned hereafter under the heads of the various diseases.

Care must be taken not to use these baths on persons who are very feeble, or emaciated from disease, or who are afflicted with weakness, or disease of the heart.

These baths are very valuable in all eruptive diseases where the rash has receded, or is slow about coming out. As a rule they will soon produce upon the surface rashes which are slow about coming out, or reproduce rashes which have gone in upon the patient from taking cold, or from any cause. In such cases a thorough emetic of the emetic powders given under the head of General Formula in this work will be of the greatest value. The emetic may be given after the bath.

The vapor bath is, also, of the greatest value in all forms of congestions and inflammations which affect the system at large. Among which may be mentioned congestion of the lungs, pneumonia, bilious fever, diphtheria, malignant influenza, inflammatory rheumatism, inflammation of the stomach, or bowels, severe and sudden colds, suppression of the menses, and in the early stages of quinsy, puerperal fever, pleurisy, rheumatic fever, etc., etc.

Let the reader remember that they have a powerful tendency to throw the blood to the surface of the body, thus relieving all internal congestions and throwing off freely all poisonous materials by the skin. The vapor bath is a very safe and very great domestic remedy. It is *cheap*, efficacious and always at hand. It is to-day recommended by the best physicians in the world. Study it carefully, and use it when occasion requires. It is better than all of the calomel and blood-letting ever used, as it relieves the congested system in a perfectly natural manner without danger, leaving all of the organs of the body in a healthy condition.

HOT AIR BATH.

The uses of the hot air bath are the same as those of the vapor bath. It is much simpler to use, and will answer precisely the same purpose. It is used as follows, viz. ·

Put a desert spoonful of alcohol into a saucer, place this under a chair, place the patient naked into the chair, throwing about him suitable comforts, or blankets, to keep in the heat, then light the alcohol which will produce sufficient heat to sweat the patient in a short time; renew the alcohol as soon as it is burned out, and relight it. Always be careful not to put in so much alcohol that when it is lit the flames will reach up and burn the patient. Keep this up long enough to sweat the patient thoroughly, for from five to twenty minutes, as he can stand it, giving him plenty of cold water to drink in the meantime, and bathing his face with cold water as often as necessary to keep him from fainting. The same precautions must be used in this as in the vapor bath, and the after treatment is just the same. Sometimes this will produce perspiration more readily than the vapor bath, and *vice versa*.

SITZ BATH.

A sitz bath may be taken by partly filling a wash tub with water as hot as the patient can sit down in, and allow the patient to sit in this from fifteen minutes to half an hour, keeping the water hot all of the time by taking out portions of the water as it cools, and replacing it by hot water.

Special tubs for this purpose can be secured at surgical instrument makers, where patients desire to go to the expense of getting them.

The sitz bath is good to facilitate tardy labor. It is also good for painful menstruation, neuralgia of the ovaries, suppression of the menses from cold, inflamed and irritable conditions of the sexual and genito-urinary organs in both women and men. It is also beneficial in certain cases of piles.

This bath should not be used just before meals, nor for about two and a half hours after meals, unless the meal should have been very light.

DRY HEAT.

Dry heat may be applied to the surface in various ways and for much the same purposes as moist heat as described in the preceding paragraphs. Dry heat may be applied by means of woolen cloths, earthen plates, sad irons, bags of salt, hot bricks, etc., properly heated. They are very excellent many times to relieve *pain*, also to keep the extremities or body of the patient warm while he is in bed, providing that his temperature is too low. A hot soap-stone, or brick, placed at the feet during a ride in a carriage, or sleigh, of a cold day, is an excellent thing to keep the feet warm.

The Turkish Bath consists of being placed in hot air chambers, and having the temperature gradually raised till copious perspiration ensues, drinking plenty of cold water in the meantime. They are used for the same purposes as the Vapor Bath and the Alcohol Bath, and are not so convenient nor appropriate for general use in families as the two last named.

SECOND DIVISION OF THERAPEUTICS.

REMEDIES TAKEN INTO THE STOMACH.

Remedies taken into the stomach constitute perhaps the chief department of medical therapeutics. Any division of them as to their sequence is merely arbitrary in the treatment of them in a medical work, and we shall treat of them to suit our convenience. They will all be

properly indexed so that the reader can refer to them without difficulty. Internal remedies consist of:

1. Emetics.
2. Purgatives.
3. Diaphoretics.
4. Tonics.
5. Alteratives,
6. Diuretics.
7. Medicines for hemorrhage.
8. Opiates.
9. Antispasmodics.

Several distinct classes of medication, owing to the compact size of our work, must necessarily be crowded out at this place, but the reader will find each treated of thoroughly under the different diseases where they would be needed. First let us proceed to the consideration of emetics.

EMETICS.

Emetics are remedies which are taken into the system to induce a vomiting of the contents of the stomach.

They are much more in vogue among French physicians than in this country, but I have used them freely in my own practice.

They are not once used in this country where they would prove an invaluable remedy dozens of times.

Their therapeutic value is two-fold, viz.:

First, they rid the stomach of all offending substances, such as undigested food, mucus, bile, etc.; secondly, they, by their relaxing influence equalize the circulation of the blood, which is a necessary factor to health. Under all circumstances emetics are of special value in all bilious diseases accompanied by fever, such as intermittent, bilious, or remittent fevers, jaundice, general biliousness, etc. They are also very necessary, occasionally, in all protracted forms of fever, such as typhoid fever, tyhus fever, simple continued fever, etc. They should be used in such cases just sufficient to keep the stomach cleansed from foul material so that food can be either absorbed or digested. In nearly all kinds of

fever the stomach is apt to become loaded with a foul mucus, which not only prevents the digestion of food, but the absorption of remedies as well. A thorough cleansing of the stomach in such cases *often determines the crisis of a disease in the patient's favor.*

Emetics are of special value in the early stages of small-pox and scarlet fever, as well as in many cases of measles. In fact, they are of *prime* importance in all forms of eruptive disease where serious symptoms present.

Their powerful tendency to equalize the circulation, throwing the blood to the surface, has a positive tendency to establish eruptions upon the surface of the body, which as all know is generally indispensable to the saving of the patient. After rashes have gone in, a thorough emetic followed by a vapor or alcohol bath, giving the patient suitable stimulants internally, is the *most powerful* means which we have of re-establishing it upon the surface.

Emetics are of remarkable efficacy in the diseases of children. The sudden attacks to which they are subject are nearly always accompanied by a foul stomach. An emetic is frequently about all the medicine they need. Emetics are of especial benefit in croup.

It often happens in chronic cases of liver complaint, and in various old complaints, that a thorough emetic arouses the secretions and stirs up the absorbents of the system in such a manner that suitable remedies for the disease will exert their proper medical effect upon the system in a much more decisive and satisfactory manner. One thing may be set down as perfectly certain, viz: that remedies cannot be readily absorbed and exert their full influence in the presence of foul material in the stomach, and these can be removed only by emetics, or cathartics—the former of which is many times preferable, and less harmful to the system.

The great amount of prejudice which exists against emetics is owing, in a great measure, to the drastic nature of the emetics often used by physicians.

Emetics should be of such a character as to be easy in their action on the stomach, and they need never be dangerous to life.

We have emetic agents at hand which meet all our requirements that are perfectly safe, yellow sulphate of mercury (turpeth mineral), sulphate of copper, sulphate of zinc, tartrate of antimony and potassa, (tartaremetic), and apomorphia, are all used with more or less success as emetics for different purposes, but they should only be administered under the care of a physician, and some of them are dangerous to life even then.

The emetics which the author would recommend for general use are ipecac, lobelia, mustard, alum and warm water.

A very simple and very efficient way to produce vomit where the stomach is overloaded, is to stick the finger in the throat, thus gagging yourself till you throw up what offends the stomach. This is especially servicable where no other emetics are at hand, and where it is necessary that the patient should at once be vomited.

The way to administer the above emetics is as follows: For Ipecac for an adult, put four grains into a tablespoonful of warm water, and give once in fifteen minutes, until vomiting occurs. Drink warm water freely in the meantime, and this will hasten the vomit; but where a more relaxing influence is desired upon the system the patient should be in no hurry to hasten the vomiting short of twenty or thirty minutes. If it is desired to make the patient perspire freely after the emetic, hot stimulating teas may then be freely given. We must not forget the necessity, however, after the patient has perspired freely, and when all fever and inflammation have been subdued, to give the patient suitable tonics to sustain his system against the depressing influence of too much relaxation and exhaustion from profuse perspiration. For by so doing we will stimulate the various organs of the body to their normal activity, thus enabling them to throw off the various poisons which accumulate in the system by their natural channels of exit, thus avoiding the further necessity for emetics.

For Lobelia, from five to twenty grains of the pulverized seed may be given in warm water, with four or five

grains of common baking soda to neutralize the acid of the stomach, once in ten minutes until vomiting is produced. The other directions are the same as for Ipecac.

Warm water used freely prevents griping and severe retching of the stomach in all forms of emetics.

Whenever the patient strains hard to vomit and the stomach is empty, give him a whole glass of water, as hot as he can drink it. Repeat this as long as he continues to strain. After this he can drink cold water if he so desires, but to drink cold water during the emetic generally produces cramping with much pain. It also prevents the patient from sweating freely. Wherever it is desired to have the patient sweat freely, he must be kept warmly covered with bed clothes as long after the emetic as it is desired to keep up perspiration.

For alum, a teaspoonful of powdered alum in syrup, honey or mucilage is a dose. It can be repeated every half hour until the patient has vomited sufficiently. As an emetic, its only use is in diphtheria, and croup, with a view to the detachment of false membranes.

For mustard, from a tea to a dessert spoonful of powdered mustard may be stirred up in a tumblerful of tepid water, and quickly swallowed. We may prevent too much irritation, and also expedite the emetic action of mustard by drinking freely of tepid water.

Mustard is a good emetic in cases of poisoning; also where we desire an emetic in cases attended by much depression.

PURGATIVES.

Purgatives are medicines which, when taken into the system have the effect of causing an increased action of the peristaltic motion of the bowels as well as an increase of fluids from their mucus coats, thus facilitating the discharge of their contents.

They are used when the bowels are constipated, or when from other causes we desire a derivative effect, *i.e.*, desire to divert fluids from other parts of the body where they exist in excess. They are also necessary in many diseases in which poisons rapidly accumulate in the system.

The bowels then become an important outlet by which we may rid poisons from the system.

Many times without the aid of purgatives the patient would die. The poisonous excreta which forms in the bowels in the course of malignant diseases, must be removed. In connection with this last statement we may mention diphtheria, acute inflammatory rheumatism, remittent fever, pernicious and intermittent fever, typhus fever, bilious colic, and also in many inflammatory conditions the derivative or revulsive effect of proper and thorough purgation is absolutely essential to the successful management of the case.

The character of the purgative used is of the highest importance.

Harsh physics must be avoided in the cases of children.

Purgatives must be avoided in inflammation of the bowels. In such cases we may use as relaxant, large doses of sweet oil, or homeopathic doses of *nux vomica*, also injections of warm water, or elm tea, or sweet oil, or warm milk.

For general use the saline cathartics, such as epsom salts, rochelle salts, seidlitz powders, effervescing draught, sprudel salts, and the various mineral waters are the best. These articles do not derange the secretions as much as vegetable physics, and they are as a rule much more efficacious in removing biliousness, and are not so liable to be followed by constipation. For ordinary use, and for many diseased conditions, I am very partial to sprudel salts.

The seidlitz powder is, also, an excellent non-irritating physic.

A single drop of tincture of *nux vomica* in two or three swallows of water, repeated once in three or four hours, will often move the bowels where harsher remedies fail utterly. This is of special value in irritable, or inflamed states of the bowels, and in the lying-in chamber where harsh physics would be dangerous to life. It can do no hurt in such cases to try it at least. The author has often received the most satisfactory results from it.

The harsher physics will be spoken of under the treat-

ment of the different diseases, wherever the author deems their use advisable.

It might not be out of place to mention here in passing that one-sixth grain of strychnia divided into eight doses, and a dose given once in three hours for twenty-four hours, also one pint of the best olive oil given at the same time during the twenty four hours, has moved the bowels where all other means that could be devised had failed.

It will be necessary, of course, to give the strychnia under the care of a physician.

Many persons injure their stomach and bowels, and also, derange the liver and the blood by their habit of taking pills so often. These pills are often some ill-advised patent nostrum which is far more injurious than beneficial to the system. Their use is generally followed by constipation, which of course, calls for another dose which is merely a "jumping out of the frying pan into the fire." There are thousands of cases of piles caused by the constant habit of physicising with strong injurious medicines.

What we want for constipation are remedies which restore the secretions of the bowels producing *natural action*.

A good *general rule* is that purgatives should not be taken where we can avoid their use. Let the use of fruits, and loosening diet, and proper hygiene, go as *far as it can*.

DIURETICS.

Diuretics are a class of remedies which exert their chief effect upon the kidneys, either by increasing the watery flow of the urine, or by increasing the amount of solids which it contains, or both. It may be desirable according to the case to use one or both.

The amount of water which the kidneys throw off depends upon age, temperature of the air, amount of food taken, amount of water drank, and also, upon disease.

Persons pass less urine when the temperature of the air is warm, causing the patient to throw off more water by the skin. Persons using little food, or drink, pass less urine than those who eat and drink more, and owing to the same

causes as a person eats or drinks more or less, the amount of urine which he passes will vary accordingly. He will, also, pass more urine in cold than hot weather, and more when he is idle than when he is actively engaged.

I offer these general observations as a key for the patient so that he may not use diuretic medicines when he does not need them. Each person should study his own system, and become familiar with it in a state of health, so that he may readily detect any deviation from this which is sufficient to constitute disease.

The conditions which ordinarily call for the use of diuretics may be conveniently summed up as follows: First irritability of the urine. This may arise from two causes. The urine may be too acid, or too alkaline.

The acid condition of the urine may be relieved by fifteen grains of bi-carbonate of potassium taken in a glass of water three times a day, or by taking ten grains of acetate of potash in a half glass of water three times a day, or by taking four teaspoonfuls a day of lithiated hydrangea.

Alkalinity of the urine can be relieved by eating acid fruits, etc., or the patient can take ten drops of dilute hydrochloric acid in a half glass of water before each meal.

The way to tell whether the urine is too acid, or too alkaline, is to test it by dipping a piece of violet litmus paper into it. If it turns the litmus paper a strong red, then it is too acid. If it turns it blue, then it is too alkaline. If it does not change its color then it is neutral in reaction, and we may then look for other causes of disease than irritability of the urine.

The urine for testing should be passed on rising in the morning. Acidity of the urine is much more common than alkalinity of the urine, this last being caused chiefly by an excess of alkali in the water which the patient uses daily, or by some grave disorder of the kidneys or bladder, or both. Any of the medicines, also the litmus paper, can be procured at the drug store. They are all cheap, and simple, and safe to use.

The Diuretic medicines are often of great value in the treatment of diseases outside of the kidneys. Among

which may be mentioned nearly every form of fever, dropsy, jaundice, etc., etc.

Ten grains of acetate of potash, three times a day, is one of the chiefest of remedies to remove yellowness from the skin.

The common practice which many people have of taking for every little trouble of the urine such strong remedies as buchu, turpentine, copaiba, etc., in large doses, is often productive of much harm, leading to serious inflammation and disease of the kidneys and bladder.

The Author finds but little use for so drastic a class of diuretics in his practice.

Where it is desired to increase the watery flow of the urine we may give either fluid extract of corn silk, or tincture of queen of the meadow, in teaspoonful doses once in four hours, till the desired effect is obtained. Five grains of acetate of potash to each dose of either, will increase their effect as well as efficiency in most cases. These will be found safe, pleasant and *efficient*.

Diuretics should not be pushed too far in organic diseases of the kidneys when the structure of the kidneys is much impaired. Physicians are constantly making grave mistakes in their practice at this point. By giving diuretics too freely to kidneys which are already inflamed and diseased, the tendency is to make these organs do as much, and in many cases more work than they would ordinarily perform in a state of health, which is manifestly a great wrong to the kidneys.

The true theory of practice in such cases is to supply the kidneys with such remedies as will *strengthen* and *heal*, rather than those which will overwork them; and in the meantime we must use such means as will divert the secretions to other means of exit from the body, viz.: The skin and the bowels.

Appropriate treatment for kidney troubles will be mentioned in its proper place under diseases of the kidneys.

DIAPHORETICS.

Diaphoretics are a class of medicines which have a ten-

dency to promote the circulation of the blood toward the skin, thus promoting the excretion of poisons by it. They are among our most valuable agents in coping with many forms of disease, especially dropsy in all its forms, fevers of different kinds, as well as chronic cachetic states in which the system is overloaded with poison.

Greater stress should be laid upon diaphoretics and less upon physics than is often done in acute wasting diseases.

Diaphoretics are always aided in their action by being accompanied by warm baths and all kinds of applications of hot water, vapor or hot air. The air of the apartment in which the patient lies should always be kept warm when we desire a diaphoretic action from the remedies which we administer. Great care must be exercised not to allow the temperature of rooms in which the patient is sweating to be suddenly lowered, as this is nearly certain to give him cold, and may lead to serious if not fatal congestions. When we desire to stop the patient from sweating we must dry his surface by rubbing with a dry towel. We should also administer suitable tonic medicines which will have a tendency to narrow the caliber of the orifices of the perspiration tubes of the skin, thus maintaining a dryness of the surface. The temperature of the room must also be gradually lowered, and the amount of bed covering can also be made lighter, leaving only about enough to maintain the ordinary temperature of the body.

Great care must be used to avoid pushing diaphoretics too far, as too much perspiration rapidly exhausts the patient. In the later stages of fevers when the surface is generally bathed with sweat, all diaphoretics must be discontinued. The best diaphoretics which we have are aconite, gelsemimum, belladonna, asclepias, ginger, capsicum, prickley ash (the bark or berries may either be used), carbonate of ammonia and jaborandi, may also, sometimes be used. Ipecac, lobelia and opium under some circumstances are very valuable. Dovers powder is often an excellent compound.

Most of the foregoing agents work better in combination with others than singly. Many other remedies may, under certain circumstances act as diaphoretics.

Medicines given in large quantities of warm water have a much more powerful diaphoretic action than when given cool.

Large doses of quinine, opium, mineral acids, or belladonna are the best remedies to check sweating in all cases. In some prostrating forms of disease, however, it is necessary to keep the surface cool, washing it once in two or three hours with brandy, whiskey, or alcohol, in addition to the use of one or all of the above remedies. The surface should also be thoroughly rubbed occasionally with a piece of dry flannel.

The kind of diaphoretics best suited for the various diseases will be mentioned under their appropriate head.

TONICS.

Tonics are a class of remedies which impart firmness and vigor to the parts upon which they operate. They oppose relaxation and firmness of structure in every tissue except the bones.

Different tonics act upon different structures, hence they receive names, according to the class in which they belong, as for example, we have nerve tonics, stomachic tonics, hepatic tonics, uterine tonics, etc.

They are a most valuable class of agents, as they promote the natural activity of the various parts of the body in a natural manner, thus enabling them to carry on their normal functions, throwing off disease on the one hand, and on the other hand aiding in the elaboration, assimilation and purification of the blood by the natural excretory outlets of the human system.

Tonics in acute diseases should be used as a rule after all fever has gone down. The practice which some physicians have of giving large doses of tonics such as quinine—during the fever stage, for the purpose of reducing the fever, is very pernicious.

Over doses of quinine evidently reduce fever by an over stimulation of the nerve centers which often leads to a partial paralysis of their functions. The fever is reduced only because the partially paralyzed nerve centers are

unable to respond to the irritation of whatever poison floats in the blood which alone causes fever. This last statement the Author thinks, is very correct in all fevers. If any exception whatever can be made it is in malarial fevers. Quinine is undoubtedly an antidote in a great measure to malaria.

Quinine in small doses may be given in the later stages of fever when the system is too much prostrated to support the nervous centers; but it should never be given in doses sufficiently large to paralyze the nerve centers. This is always injurious and frequently dangerous to life. The Author prefers to give the special sedatives, such as aconite, etc., during the severe stage, until the fever is sufficiently reduced to admit of a *moist surface* and a *cleaning tongue*. The only exception which the author will make to the foregoing statement is in pernicious intermittents in which cases quinine, combined with opium and accompanied by suitable stimulants, both internal and external, is absolutely essential to the saving of the patient's life.

The Author desires to say in this connection that if the readers of his work will follow his advice in the treatment of the different fevers as hereinafter given, that he sincerely believes that they will be repaid a *hundred fold* for all the pains they may ever take to study this little work.

GENERAL REMARKS.

The other subjects which properly belong under the head of therapeutics will be omitted here. Inasmuch as all that could be said of value concerning them must necessarily be stated under the head of the different diseases which will be treated of in this work. And the Author does not desire to weary his readers with useless repetition.

SYMPTOMATOLOGY OR SEMEIOLOGY.

Under this head we shall treat briefly and to the point of *general symptoms* of disease which will enable the reader to form a practical idea of the *seat* of a disease, and also, be able to tell its *general character* and to form an estimate of the *danger existing* in the case, and the *proba-*

bilities of the *outcome* of the case as to whether or not it will be favorable.

In doing this it is not the Author's intention to load this work down with a vast amount of *detail* which only those who make a thorough study of medicine can ever hope to master.

The practice of most authors in writing works for general use seems to have been rather to make a great display of detail than to confine themselves to those leading *cardinal facts* and principals *which are alone* of any *practical use* to the ordinary person who has never made medicine a careful study.

It is my object all the way through this work to give you *plain, every day facts that you can use*.

If the reader will be just a little patient and read the following carefully it will give him a good general idea of a patient's condition so that he can turn over to the chapter which treats of any particular disease, and which gives the accompanying treatment, and be able to form an intelligent idea of the patient's condition:

THE PULSE.

Each motion of the heart throws a wave of blood along the arteries. This arterial *wave* constitutes the *pulse*. This can be best felt at the wrist.

In men the average beat of the pulse is from 65 to 75 beats per minute. In women from 70 to 80. In children the pulse rate varies from 100 to 120. In old people the rate is ordinarily from 60 to 70.

The pulse is slowest when lying down, faster when sitting and faster still when standing, and its speed increases with exercise.

The pulse is, also, faster after the taking of a meal, the smoking of a cigar or the taking of any stimulant to the heart's action, such as ammonia, capsicum, whiskey, etc.

The pulse is slower during sleep, except when the patient is seriously exhausted, and the heart is very feeble. In such cases the heart's action may be reduced to a mere flutter in serious cases. When this enfeebled action of the heart exists the patient must not be allowed to sleep

long at a time, but must be aroused as occasion requires, and be given such medicines as will strengthen the heart's action. Capsicum, digitalis and carbonate of ammonia are perhaps the best medicines for this purpose.

Naturally the pulse should beat about four times to each respiration. If the breathing should be faster than this we look for disease of the lungs. Should the rate of the heart be faster in proportion to the number of respirations, we look for disease of the heart.

We will here consider the different kinds of pulse.

The patient should always become familiar with the beat of his pulse in health, and if a parent, of the pulse of each of his family, so that any deviation from this may be readily recognized.

This direction is of the *most vital* importance to parents, as then any deviation from health may be at once recognized and appropriate means be used to check the disease in the earliest stage, which is the best stage in which to overcome it as a rule.

A fast pulse is where we have more than the ordinary number of beats per minute.

The fast pulse is generally strong and full in inflammatory affections, where the patient is of full habit and strong constitution, and is much more favorable than the weak and feeble but fast pulse. As a rule the pulse becomes more feeble and faster as a disease of an acute nature and accompanied by fever, advances, and always points more or less to a typhoid condition, which not only requires remedies to *control* the fever but to *strengthen* the heart as well.

Wherever fever exists accompanied by a rapid pulse, remedies must be used *persistently* to reduce the rate of the pulse until it comes back to its normal standard. The best known remedy on earth for this is aconite in small doses frequently repeated. Two drops of the mother tincture of aconite to four ounces of cold water is enough. Give a teaspoonful of this once every half to one hour, according to the urgency of the symptoms, until the pulse moderates and the fever abates; smaller doses of the same being used for children and infants.

An *intermittent* pulse is where the pulse occasionally misses a beat. It shows that either the nerves supplying the heart, or the muscles of the heart are weakened. The remedies are, digitalis, ergot, and sometimes iron, preferably the tincture.

The same remedies are also applicable where the pulse is *irregular*.

A pulse of 140 beats per minute is always alarming. Should the pulse go much beyond that the case is very grave.

I purposely omit a description of several kinds of pulse as they would only serve to confuse the casual reader of medicinal works.

RESPIRATION, OR BREATHING.

The subject of breathing in disease will be treated of still further under diseases of the lungs, heart, throat and air passages.

From sixteen to eighteen respirations per minute is the average for a healthy adult male. It is faster in women, and is about forty to the minute in children at birth. Any deviation from natural breathing should always be watched as it portends disease.

Coldness of the breath is a very grave symptom as it generally accompanies collapse, or approaching death.

HICCOUGH.

Hiccough is caused by a spasm of the diaphragm and is generally induced by indigestion, but is a very grave symptom in the later stages of prostrating diseases.

THE VOICE.

Any alteration of the voice should be watched in disease. The cause will generally be apparent.

COUGH.

Cough is always a serious symptom, and its cause should be sought out and removed if possible. It may be caused from trouble in the lungs, or air passages, stomach trouble, nervous trouble, liver trouble, spleen trouble, catarrh, etc.

Its significance will be pointed out under the head of the various diseases, and appropriate and reliable treatment furnished.

THE TONGUE.

The appearance of the tongue is an important factor in determining the condition of the patient in many diseases. It is also of the greatest importance in determining the patient's condition at different times in the same disease.

In treating of the tongue we will consider its *color, shape, size, position and motion*.

A *white* tongue indicates one of several things. It may point to a *sour stomach*, an *inflamed stomach*, and to a *derangement* of the *secretions*, or to some *poison* working in the *blood*. It is very common in the early stages of fevers of all kinds. The surrounding circumstances must be the patient's guide as to what it may mean in any given case.

A *large, red tongue* points either to inflammation of the tongue itself, or of the stomach, or to an unduly arterialized state of the blood.

A *livid*, or *purple* color of the tongue, refers to an imperfect aeration of the blood. This is more pronounced as a symptom when associated with purple lips.

A *pale tongue* shows a *deficiency* of the red corpuscles of the blood.

A *brown* coat on the tongue always shows a very vitiated state of the secretions and the blood, and points toward a typhoid condition of the system, and is nearly always present in mortification.

The *brown* tongue may also occasionally be found in cases of dyspepsia, or in the later stages of Bright's disease of the kidneys.

A *yellow tongue* indicates a bilious condition. It occurs in all malarial diseases, and in jaundice, and in yellow atrophy of the liver as well as nearly all liver troubles, both acute and chronic.

It may either indicate that bile exists in the stomach or that the liver is failing in its functions, and that the bile after being formed in the liver is again taken up by the

blood and being thrown off by the various mucus surfaces of the body instead of being thrown off by its proper channels.

In some diseases the swelled papilla of the tongue stick up through the white coat on the tongue as red points. This occurs most frequently in the eruptive fevers, such as measles, scarlet fever, etc. This condition of the tongue, however, occurs sometimes in persons when their stomach gets empty.

The manner in which the tongue cleans off is an important indication in disease. It is favorable for the tongue to gradually clean off from the tip and the edges working toward the center. When the fur cleans off in patches it indicates a tedious convalescence.

It is a bad symptom to see the tongue when it is cleaning, become dry, cracked, or fissured.

To have the tongue feel *slick* or like it was glazed is a sign of indigestion, which may be the result of disease or overeating.

A dry, red and cracked tongue indicates a diseased condition of the alimentary canal.

Thrush or apthous patches, are generally a fatal sign when occurring in the later stages of chronic diseases, but they may occur in persons in ordinary health, without exciting alarm.

A *loss of taste* indicates a disease of the surface of the tongue, or paralysis of the nerves supplying it, and should always receive attention.

The *position* of the tongue should be watched in administering anesthetics, as it is liable to drop back into the throat and choke the patient.

The *movement* of the tongue is sometimes of value. When the patient is unable to protrude his tongue without difficulty it shows a great degree of debility, or points to disease of the brain.

Stammering in speaking is also a bad indication when the patient is low.

When in protruding the tongue it is stuck out of the mouth to one side, it shows paralysis of one side of the

head, which paralysis of the head is generally shared to a greater or less extent by one whole side of the body.

A *narrow*, elongated tongue, shows internal irritation, accompanied by a failure of the digestive, or assimilative apparatus. When this kind of a tongue is coated with a red stripe down the center it shows irritation, or inflammation of the lower bowels, and in women it may point to inflammation of the uterus, or its appendages. *Excessive thirst* accompanies various forms of internal congestions and inflammation, as well as sometimes diabetes of the kidneys. In diarrhea and cholera the thirst is excessive.

Excess of appetite without some apparent cause is always a sign of disease. It occurs in diabetes, epilepsy, some forms of dyspepsia, some cases of hysteria, etc.

For a person who is dangerously sick to turn suddenly very hungry, is a very serious symptom, and is generally a forerunner of death. It is commonly called death hunger.

Persistent vomiting, where there is no apparent cause for it is generally a sign of derangement of the brain, or the development of some eruptive disease, or that some poison has been swallowed unknown to the patient.

CONDITION OF THE BOWELS.

The state of the bowels should in all cases of disease be carefully attended to, as the patient's life very often depends upon this. We should take careful note of the number of operations which a patient has daily. We must observe the color, thickness and the amount of the stool, and also its character.

Unusual offensiveness of the stools always points to a derangement of the liver, the bowels, or the blood, and always requires attention.

Black stools unless caused by some article of food, or medicine, shows a very vitiated state of the secretions or liver or both, or may indicate an admixture of blood.

Clay colored stools show a stoppage of the flow of bile from the liver, or gall duct.

Dry stools show a deficiency of secretion from the

mucus membrane of the bowels. Dryness of the mucus membranes leads to constipation, which is always bad.

Green, watery discharges from the bowels of infants indicate indigestion and sourness of the secretions.

Sudden diarrhoea shows a recession of blood to the solar centers, which increases the secretion of the mucus surface of the bowels. The surface in these cases generally becomes cool and dry. However, the surface is sometimes hot when profuse discharges from the bowels exist, but in these cases the cause is over-heat, or a specific poison working in the system.

The physician should always *personally examine* the stools when treating any case which is liable to be suddenly dangerous, as the patient is not always able to give the physician a sufficiently accurate description of them which would be sufficient for purposes of treatment.

CONDITION OF THE KIDNEYS.

The condition of the kidneys must be watched in *every* disease.

Highly colored urine generally indicates fever, blood, or an excess of uric acid.

A *scanty* amount of urine is found in partial suppression of urine, in fever, or in advanced stages of kidney trouble and is always very serious, except where the patient eats and drinks but little, or sweats profusely, in which event a state of good health might exist in exceptional cases.

A *red sediment* at the bottom of the vessel soon after urine is passed shows either *blood* or *uric acid* in excess in the urine.

A *heavy, white sediment* at the bottom of urine, after it has settled for a few minutes, shows an excess of phosphates in the urine. This may refer to some wasting disease, or to disease of the nervous system.

Mucus settling at the bottom of urine points towards disease of the urinary passages, or to inflammation of the bladder. By pouring off the upper portion of the urine the mucus can be detected by lifting it with a stick or glass rod.

Albumen can be found, if any exists, by boiling some of the urine in a clean bottle over a lamp. If it turns white upon boiling, or if a white sediment forms—if this does not clear up by adding a few drops of nitric acid—then the sediment consists of albumen. Albumen in urine is a very grave sign, and must always be attended to. Look under the head of Brights disease, and you will find the appropriate treatment.

Scalding of the urine is caused by inflammatory products coming from disease of the kidneys, or bladder, or from an excess of alkalinity or acidity of the urine.

COLOR OF THE URINE.

Natural urines should be about the color of ripe oat straw. If it be more yellow it contains bile. If it is *very clear* it shows either that the solids of the urine are not being properly thrown off, or that the quantity of the urine is so great as to point toward diabetes. Yet, the urine may be clear after drinking large amounts of fluid, or when the surface of the body is cold.

Very dark urine generally contains blood.

Matter can generally be detected, as it settles to the bottom in coagulated particles and looks like matter. Its existence denotes serious disease of the kidneys, bladder or urinary passages. Other symptoms must determine the exact location of the disease.

Difficulty in starting the urine shows spasmodic or organic stricture of the sphincter of the bladder. Difficulty in passing the urine after it is started generally shows either organic stricture of the urethra, or stone in the bladder.

BREATHING.

It is only necessary to call your attention to breathing for you to take notice that the way in which the patient breathes is a most important indication of his condition in many diseases.

When the patient's lungs are partially filled with accumulations, either acute or chronic, his breathing is necessarily more rapid, inasmuch as there is less healthy lung

surface from which oxygen can be absorbed. Hence, to absorb a given amount of oxygen from less than the normal amount of space requires a greater number of respirations to supply the needs of the system. In disease the blood is charged to a greater extent with poison which must be thrown out with every act of respiration. Hence the required increase in their number per minute.

Difficulty in breathing is also an important factor in diagnosis. We have the *crowing* respiration in croup, the *labored* respiration in advanced cases of consumption and heart disease, the *wheezing* respiration in asthma, and the suffocation of emphysema. We may, also, have great difficulty of breathing from mechanical pressure upon the throat, or windpipe, as in tonsillitis, or goiter, or tumors, scrofulous or otherwise, pressing against the respiratory openings.

The breathing is much faster in fever than in health.

When the brain becomes affected in acute diseases the breathing becomes quick and shallow.

When the breathing of a patient becomes so labored in sleep as to threaten a total stoppage of respiration, he should be awakened or have his position in bed changed.

Sleeping on the back is likely to lead to labored breathing, either in health or sickness.

Stertorous breathing is a sign of much depression in the advanced stages of disease. It is also liable to be found during their sleep with those who are suffering from disease of the heart. It may, however, be owing to an elongated palate.

Sighing respiration is a common symptom of grave diseases of the heart. This symptom is also liable to afflict females suffering with diseases peculiar to their sex. It also occurs frequently in those who suffer from some long continued and harassing ailment.

The constitution of the patient always enters into the consideration of a case in determining its gravity and in fixing upon an appropriate treatment. If a person be naturally strong and rugged, they can endure the shock of disease better than a weakly one, and they, as a rule, require

larger doses of medicine to affect them. Some people inherit a natural tendency to scrofula, cancer, consumption, weakness of the liver or stomach, etc. All of these things exert a greater or less influence, according to the disease. Excessive nervous development, also exerts a very prominent effect over the course of a disease, causing all of the symptoms to be more aggravated.

The previous history of a case, also, exerts a *very marked influence* in many cases of disease in determining their *gravity*, their *course* and an appropriate course of treatment. It is well for us to inquire whether the patient has previously suffered from the *same disease* with which he is now afflicted and how *often* and how *seriously* he has so suffered. It is well to know whether he *inherited* any predisposition to it from any of his *ancestors*, either *near* or *distant*, as hereditary influence may *skip* one or two generations, breaking out in a *second*, or even *third*. Heredity exerts a very marked influence upon the course of a disease, and this remark applies in many cases to diseases both *acute* and *chronic*. We must also inquire about the patient's habits of *eating* and *drinking*; also about his labor, sleeping apartments, and ascertain in what ways he has been exposed, either by incorrect habits, accidents, or to some *contagious* disease. The *location* in which the patient lives, or *improper* drainage and *sanitary regulations*, may many times give a valuable clew to the nature of the disease, and its proper treatment.

A person who has changed *climate* is more liable to become afflicted by diseased influences which exist there than are those who have become inured to them.

Pain is an important factor in assisting us to make up our estimate of a disease. Pain is the *danger signal* of the human system, warning us of the operation of some destructive cause. We must not be misled by the *absence* of pain, however, as some fatal maladies are accompanied by but little or no pain.

The *character* of a pain frequently tells us the kind of tissue which is affected.

In neuralgia and cancer we have darting, shooting and

lancinating pains. The pain of muscular neuralgia and pneumonia is dull and aching. The pain in rheumatic joints and muscles is tearing or gnawing. A sharp cutting pain is felt in pleurisy which is increased by deep breathing. The pains of colic are griping and periodical and relieved more or less by pressure.

In inflammation of the bowels the pain is nearly constant and aggravated by pressure.

Pressure relieves the pain of neuralgia, but aggravates the pain where inflammation is present.

The pain in erysipelas is burning and smarting in character, and stinging and nettling in nettle rash (urticaria).

A hot pain on top of the head in women is generally referable to uterine trouble.

Pain across the small of the back refers either to lumbago or kidney trouble or disease of the uterine or sexual organs.

The pain of hip-joint disease is often experienced mostly at the knee. The pain from stone in the bladder is frequently felt in the head of the penis. In irritation of the stomach the pain is often seated in the forehead and the eyes. Hence it will be seen that pain is often remote from the seat of the disease. This is owing to the reflex action of the nerve centers.

Some persons are more susceptible to painful sensations arising from a given cause than others.

Long continued pain at a given point generally indicates congestion of a chronic nature, or inflammation, or both. However, it sometimes happens that it is purely neuralgic.

The worst pain in bronchitis is generally seated about the lower end of the breast bone.

Pain over the eyebrows generally points to congestion, or inflammation of the interior of the eye ball.

Acute pain in the ear shows a congestion, or inflammation of some part of the middle, or internal ear, and demands *immediate* attention.

Dizziness refers either to an affection of the liver, stomach, kidneys, bowels, brain, internal ear, or blood. Its cause should be carefully sought after as it is always more

or less serious. It is sometimes a fore-runner of apoplexy and softening of the brain.

Delirium consists of mental aberration caused by the poisonous effect of disease upon the brain. It is always a serious but not necessarily a fatal symptom.

Patients suffering with delirium should be carefully watched, and a physician should always be summoned to attend them.

TEMPERATURE.

The average temperature of the body in a state of health is $98\frac{1}{2}$ degrees fahrenheit. It is slightly higher in women and children than in men. Any marked variation from the *average* is always a sign of disease. To test the temperature, place a clinical thermometer either under the tongue, or in the rectum, or in the armpit, allowing it to remain three or four minutes, when it will register the correct temperature of the patient.

The temperature must be carefully watched in every disease. Every family should own a clinical thermometer, as in this way they can often detect the approach of a disease whereas otherwise it might longer elude their observation. It is also of the greatest value during the course of a disease, especially in fevers, lung trouble, etc. Its cost is small and investigations made with it are perfectly reliable.

In some diseases the temperature is very high; in others it is very low. It has been known to run up to over 110° , and as low as 66° . The extreme heat compatible with life is thought to be 103° to 109° . Few, if any, ever survive if the temperature rises above this. It is thought that the fibrin of the blood has a tendency to coagulate when the blood suffers from extremely high grades of temperature.

The heat of the body is often unequally distributed in disease. Sometimes the head is hot, and the feet and extremities cold. Whatever may be the cause of this in any given case one thing is certain, that it *must* be regulated before health can be secured.

Permit me to lay down a general proposition concern-

ing the temperature of the body, viz:—that too *high* a degree of heat leads to the waste of the tissues of the body, burns them up, so to speak, and that too *low* a temperature indicates a sluggishness in the performance of every function allowing poisons to accumulate in the system and a failure of the system to be properly renewed with life-giving and life-preserving material. On the one hand we must curb the system, and on the other hand lash it into greater activity by those means which God has graciously placed within our reach.

The expression of the face must also be carefully watched in disease. A calm, natural and tranquil countenance is always favorable. A *pinched* and *half deathly* expression is always unfavorable.

As the patient progresses toward health the *rule* is that his countenance becomes more *natural*, and as he progresses toward death he looks less and less like his own *natural self*. There are exceptions, however, to this rule as the patient nears his end in some conditions and in some diseases. But the surrounding circumstances will ordinarily be sufficient to notify the intelligent person when the exception occurs. A gradual cooling off of the extremities toward the body without any pain or uneasiness on the part of the patient is one of the *gravest* of symptoms. This fact should have been stated before.

The *sex* of the patient must be constantly kept in view. Women are more delicate than men. Again, pains in certain localities of a woman's body are liable to result from widely different *causes* than in men.

Woman leads a double life, viz.: That of a human being and in addition the life of a female and a mother. Hence she is subject to many more ills than man, and her difference in function and structure is liable at any time to lead to complications during the course of a disease to which the system of a man is a stranger.

Dropsy is always a symptom of some serious lesion. If it exists in the hands, face and feet, it is generally referable to lesions of the kidneys, lungs or heart. If confined to the abdomen it generally refers to the liver, or spleen, etc.

The position of the patient *in bed* is also of value as a diagnostic symptom. If the patient lie with his head thrown far back against his will it is a symptom of spinal trouble. When he draws the knees up it is a sign of peritonitis, or inflammation of the bowels, or of recent hernia. When he places his hands upon his abdomen it indicates colic. He tosses to and fro in early cerebral inflammation, and in the delirium of fever. The patient lies on one side in single pneumonia, inflammation of the liver, pleurisy, and certain forms of heart disease.

He is compelled to retain a sitting posture in asthma, some forms of heart disease, and in some cases of abdominal dropsy.

Sub sultus tendimun is a twitching of the ligaments of the wrists, and is seen in the dangerous stages of typhus and typhoid fevers.

The condition of the eye often furnishes valuable information as to the condition of the patient. The *pupil* of the eye is dilated when the patient is much prostrated, or where a tumor is pressing upon some part of the optic nerve. If it only presses upon one of the optic nerves then only one of the pupils will be dilated; the other one may, indeed, be smaller than natural.

Contraction of the pupil is seen in inflammation of the brain, or retina, or apoplectic effusion near the *pons varolii* at the base of the brain.

Belladonna and hydrocyanic acid dilate the pupil. Duboisia at first contracts the pupil, but if pushed far enough dilates it. Inactivity of the pupil to the influence of light is found in progressive locomotor ataxia.

Different size of the two pupils under the same light show disease either of the eye, or the brain, or pressure on the cervical sympathetic ganglia.

HOW TO EXAMINE THE PATIENT.

In closing the chapter on symptomatology I will here give the reader a convenient and systematic method of procedure which I will leave to his judgment to vary according to circumstances.

1. When we come to the patient we must ascertain whether it be an *accident* or some *injury*.

2. When was the patient taken sick.

3. How has he appeared to suffer most.

4. How long has he been confined to bed.

5. Examine his pulse. See whether it is slow, or fast, weak or strong, regular or irregular, or intermittent. Whether it can be felt at the wrist. *Count the pulse.*

6. *Look at the tongue.* Is it coated? Is the coat white, yellow, brown or black. Is the tongue smooth, or pimply, or cracked? Is the tongue thick and broad, or is it long, narrow and pointed? Does the patient have difficulty in protruding it from the mouth? Is it steady, or trembly? Does the patient protrude his tongue *straight*, or does it come out of *one side* of his mouth? Is the tongue sore, or does it bleed?

7. Is the patient's breath sweet, or does it have any peculiar smell?

8. Are his bowels loose, or constipated? When did he pass his last stool? How did it look, yellow, green, black or clay colored? Was it hard or soft, thick or thin? How much did he pass? *Can I see it?* How often do his bowels move? Do his bowels move as often or as freely as when he was well? If not, what difference do you observe? Does stooling hurt him? Does he have any griping in the bowels? Is there much wind with the discharge? Do the bowels ever feel as though they would move, but when you try to move them find yourself unable to do so or find nothing but wind or slime? If the bowels are troubled, ordinarily ask if the patient sees any difference with them since he was taken sick?

9. Do your kidneys act freely? If not what difference do you observe in their action? Does the urine smart on passing it? Do you have any trouble in starting it? What is its color—yellow, red, dark or clear? Does it have any sediment? If so, is it white, red, or does it look like matter or mucus? If there is any reason for suspicion of kidney or bladder trouble, examine the urine as hereinafter directed under the head of "Examination of the Urine."

10. Look at the patient's face and observe its general expression. Is it pale? Is it flushed? Are certain portions pale and others flushed? What parts are pale, and what parts are flushed? Is there any eruption on the face or any part of the limbs or body? Has the patient's face an anxious, a pained or a pinched expression? Is it yellow, livid or waxy?

11. Look at the patient's surface. Is it hot or cold? Is it dry or moist? If perspiration exists; is it warm, or cold and sticky? Is the perspiration profuse or slight? At what times does the patient sweat? Does the patient feel warm or chilly?

12. Observe the expression of the patient's eye, does it look natural? Is it clear or bloodshot? Are the pupils dilated or contracted? Are both pupils of the same size? Do the eyes water? Do they ache? Do they have floating specks or flashes of light before them? Does the light hurt them?

13. How does the patient lie? Does he lie preferably or necessarily upon one side? Does he lie on his back and draw up his legs toward the abdomen? Does he bend his head back or to one side?

14. How is the patient's stomach? Is he sick at the stomach? How is his appetite? Is there pain in the stomach? Is there tenderness on pressure over the stomach? Is the patient thirsty?

15. Is the patient's mind clear? If he is delirious, is it a muttering or raving delirium?

16. Take the patient's temperature with a clinical thermometer; is any part of the body or extremities *hot while* other parts are cold?

17. Notice the patient's breathing. Is his breath *hot* or *cool*? Is his breathing *slow* or *hurried*, *difficult* or *free*? If difficult, notice carefully the *nature* of the difficulty.

18. Notice the hygienic surroundings of the patient. Is his room dry, light, clean, warm and well ventilated? Are there too many persons in the room? Is the house in which he is kept located near a marsh, surrounded by offensive smells from sewerage, hog pens, etc., or is it located

on high, dry ground where it gets plenty of sun and pure air? Can the sunshine enter his room? Does he have pure water to drink? Does he have proper food, properly prepared? Is his bed clean, warm, dry, well-aired, etc.? Does it consist of feathers, hair, shucks, or straw? Are there any noises in the vicinity which worry the patient? Do kind neighbors persist in talking to him and worrying him? Are the patient's clothing and skin clean? Is he longing for the company of some one who is absent?

19. *History of the Case.*—Has the patient ever suffered from a similar attack before? Were his parents either of them subject to it? Are any of his near relatives subject to similar attacks? Has the patient any other disease in his system which might exert an injurious effect against his recovery in this disease?

20. *General remarks.*—Treat your patient *firmly* but kindly. Allow no loud talking in the room. Allow only necessary attendants to remain in the room, unless by special request, and not then (unless it be some very near and dear friend), if he is nervous and excitable. Listen patiently to any suggestion which the patient may have to offer about the treatment of his case, and then use your own judgment as to whether you adopt any of his suggestions or not. If necessary, *personally* superintend the preparation of his food, as well as *every detail* of his management. Allow no foul odors to remain in the room. Keep the air thoroughly disinfected. Be sure that your patient gets his regular sleep if possible. Watch the nurses and see that they follow your directions. “Fire” them if necessary and get trusty ones. Visit your patient often. Don’t worry him with your attentions unnecessarily. Make all medicines as palatable to take as possible. Always convince the patient that you are interested in him. Hold up the bright side of his case to him as far as is consistent with having him follow your directions. Don’t allow outsiders to talk discouragingly to him about the prospects of his recovery. In dangerous cases always have an attendant near him, whether awake or asleep. You must absolutely control all hygienic surroundings of the

patient, as well as direct what food he shall take, and how it shall be prepared. When kind-hearted neighbors bring in delicacies and “knick knacks” which would be unwholesome for the patient, receive them kindly and slip out the back door and eat them yourself if you can, if you can’t, feed them to your dog, or some good natured pig.

NOTE.—It is not intended, nor expected that the foregoing directions for the care and *examination* of the patient should be complete. But it is sincerely hoped that they may nevertheless be found to be extremely *practical*. Neither is it expected that the medical attendant of the sick will go through *all* of the investigations there suggested in *every* case of disease. But the Author strongly urges that you pursue the line of investigation there suggested until you get a *proper clew* to the *true nature* of the patient’s disease, or at least a sufficient clew which may enable you to turn over to some of the following pages which treat of the various forms of disease, and there find the *true nature* of the disease with which the patient is afflicted as well as a careful and *reliable* course of treatment.

TABLE OF DOSES FOR DIFFERENT AGES.

Dose—21 to 60 years.....	1 part
17 to 20 years.....	$\frac{2}{3}$ part
14 years.....	$\frac{1}{2}$ part
8 years.....	$\frac{1}{4}$ part
4 years.....	$\frac{1}{8}$ part
1 to 2 years	1-16 part
6 months.....	1-24 part
1 day to 6 months from.....	1-50 to 1-24 part

Weakly females and delicate children require smaller doses than do others more robust. Whenever a medicine does not, after fair trial produce the desired result, or the effect seems to be injurious, the use must be discontinued at once.

The doses of medicine as given under the treatment of diseases in this work, unless otherwise specified in any particular case, are for adults. Persons must consult the foregoing dose tables for younger persons and children.

PART II :

DISEASES IN GENERAL AND THEIR TREATMENT.

FEVERS IN GENERAL.

Fever consists of a violent *reaction* of the nerve force against existing poisonous substances in the system, which either float through the blood, or come in contact with the terminations of the nerves which line the alimentary tube. Proof:—When all sources of irritation are removed from the alimentary tube, and all poison is removed from the blood, there is no more fever, and, further, that irritation of the nerve peripheries, or nerve ganglia, or nerve trunks is the *only possible* thing which could produce the exaggerated activity which is witnessed in fever. This last is a proposition which only requires mention to be self-evident to the student of physiology. Another proof that fever is the result of irritation resulting from some internal poison, is that the only method of removing fever permanently is by throwing out the poison in the system by the various emunctories of the body, viz:—the skin, the kidneys, the bowels, or by emesis.

The poisons which produce fever are taken into the system as microscopic germs through the lungs; or are absorbed by the skin; or they are produced by the deterioration of the products of waste within the body, owing to a failure on the part of the emunctories and secernents of the body being so deranged as to be unable to throw them out of the system. Neglect of bathing permits of a stoppage of the pores of the skin, allowing the poisons which they should throw off to accumulate in the system. A sudden chilling of the surface produces the same effect in a more sudden and powerful manner. Constipation allows the re-absorption of fecal poison through the mucus surfaces of the bowels. Suppression of the urine, or imperfect action of the kidneys, also allows poisons to remain in the

system which should be cast out. Insufficient expansion of the lungs admits of a retention of dangerous poison. Any of the poisons thus retained, if they remain in the system long, will so irritate the nerves, viz:—the nerve terminations, the nerve ganglia, or the nerve trunks, as to produce a supersensitiveness of their function which arouses them to an exaggerated activity which in turn stimulates all the tissues of the body to such an extent as to arouse them to fever heat.

The same effect is produced frequently through a different channel when the stomach is overloaded with undigested food. An overloaded stomach is often to all appearances the sole cause of fever in children. Often when their stomachs are cleansed by an emetic of all offending substances, the fever suddenly disappears, and the child breaks out into a free sweat, and all fever and all excess of excitability is removed.

Another and very common source of fever is unseen poisons in the shape of deadly gases, or microscopic germs, inhaled into the blood through the lungs, where, on the one hand, the vicious gases increase the domain of their infection through the blood by means of catalytic action, and where on the other hand, living germs incubate and multiply in countless myriads, until the blood is so fully charged with them that they become a sufficient source of irritation to the nerves to arouse a state of feverish excitement. The different forms of fever are owing to the different *specific actions* which such gases, or germs, produce upon the nerves, or tissues of the body.

An illustration of local fever from nerve irritation may be noticed if a splinter be stuck into the hand. An unnatural degree of heat is soon set up about the offending substance, which, if the cause be not removed, will lead to such a degree of fever that inflammation will ensue and the tissues will finally become so exhausted as to lose their vitality, and will break down entirely, ending in suppuration.

I regard fever and inflammation as merely different *degrees* of the same process. But whether the reader ac-

cepts, or not, this last statement, let him remember that its truth, or falsity, in no way affects the author's definition of fever in general.

Fever of the general system ordinarily has *four* stages, according to medical authors. *The First Stage* is called the stage of incubation. This stage occupies the time from which the poison is first received into the system till active symptoms begin to manifest themselves. During this stage the poison incubates, or increases, till it culminates in active symptoms. The symptoms of this stage consist of languor, with a feeling of debility which in some cases is quite marked, and in others slight; occasional headache is a frequent occurrence. The patient's appetite is at fault, constipation is not uncommon, sallowness, or paleness, or a pinched expression, or a want of expression, may mark the patient's countenance. The tongue is generally more or less coated with a white, yellowish or brownish coat. A bad taste in the mouth is frequently experienced, or the patient's taste may be changed somewhat, the patient is liable to experience a vague, undefined, uneasy feeling, occasional wandering pains often felt in the limbs, the flesh is often sore, the eyes are quite apt to be watery, the patient is more or less restless and troubled with annoying dreams in his sleep, he suffers more or less with confusion of ideas and loss of memory, he lacks his accustomed energy and vivacity, and is liable to be sullen and morose. The pulse is apt to be irregular, the urine may be clear and abundant, or scanty and high colored, the hands and feet are liable to be cool and look shrunken, the patient may yawn and stretch, and suffer from occasional chilliness, or flashes of heat.

These symptoms may last from a few hours to one or two weeks, or they may be entirely wanting, or at least pass unnoticed in some cases. They are generally of longer duration previous to fevers which run a long course.

Their character depends largely in kind and degree, upon the peculiar nature of the poison which may be in the system at the time.

Chilly or Cold Stage.—This stage is the first pronounced

step in fever. This stage may come on slow or very suddenly. The patient yawns and stretches, the surface and the extremities get blue, shrivelled and cold. Currents of air striking the patient cause him to shiver. He hovers over the fire, no amount of clothing can keep him warm, as a rule his teeth soon begin to chatter, and he shivers all over. He generally suffers with pains through the head, back and limbs. Very serious and long continued pains in the back and loins point toward some grave disorder, malignant in character. Terribly distressing and long continued pains in the head may point to inflammation of the brain.

The patient is liable to be sick at the stomach and vomit, or have great pain or even crampings in the stomach, and possibly of the hands and legs and muscles of the neck. The patient is sometimes delirious. He is generally thirsty. Sometimes the surface feels hotter than natural to the hand and sometimes colder. Sometimes his temperature, according to the thermometer, is higher than in health, and sometimes seven or eight degrees lower. Occasionally the patient does not shiver but merely feels cold. The breathing and pulse are generally quicker than in health, occasionally, however, the pulse becomes feeble, thread-like and slow, and the breathing becomes very labored. The patient's face is anxious, or indicates pain.

The cold stage varies in duration from a few minutes to days at a time, and sometimes the patient never rallies. In some cases the cold stage may be entirely wanting. A long continued and severe cold stage is a symptom of great gravity. The medical attendant must be on his guard here and use every means to establish a good reaction if he would save his patient.

The Third, or Hot Stage.—This is termed the stage of *reaction* in which the system rallies from the depressing influences which so reduced it as to throw it oftentimes into a condition which more or less resembles the approach of sudden death. A *strong reaction* is always favorable, showing a vigorous resistance to the encroachments of disease. As the chill passes off the patient becomes hot. His face is flushed and his eyes shine with a glistening brightness. He

becomes hot internally, as well as externally. His mouth becomes dry or pasty. His pulse becomes more frequent, generally running up from a hundred to a hundred and ten, and sometimes to one hundred and forty, or a hundred and sixty. The pain in his back, head and limbs, is generally increased. A feeling of soreness spreads over the body, the tongue becomes coated white, yellow, or brown. The taste becomes partially wanting, or depraved. Delirium is not uncommon in high fever. Cold drinks are generally agreeable. Ordinarily the bowels become constipated, and the stools offensive. The urine becomes scant and high colored and loaded with urea. The appetite is lost. The patient becomes sensitive to noises, and is restless and peevish. Nausea and vomiting may occur. The skin is generally dry and hot. The breathing is short and hurried. The length of this stage depends upon the *kind* of fever and upon the severity of the attack. It lasts from a few hours to months. Its length as a rule, also, depends upon the efficiency of the medical attention brought to bear upon the case.

The Fourth or Declining Stage.—The term *crisis* has been applied to that period of the fever when the patient takes a turn for the better, or, on the other hand, becomes rapidly worse until he finally dies.

If a patient takes a turn for the better, the fever begins to subside, the tongue to clean, the bowels to act more natural, the surface to become moist, the breathing to become more natural, the mind to become clear, and the patient begins to take more natural sleep. All pains subside and the expression of his face becomes more natural, and the appetite returns, often slowly at first.

Convalescence may occupy from a few hours to a week or two, depending upon the gravity and the nature of the fever.

There is a tendency in eruptive fevers to take a turn for the better, or worse, in a *certain number of days* from the commencement of the attack. These are called *critical days*. Discharges from the bowels, from abscesses, or from the skin, or kidneys, at this time are called *critical discharges*.

GENERAL REMARKS ABOUT FEVER.

The foregoing remarks about fever are applicable in a greater or less extent, to all forms of fever. They will, at least, serve as a practical guide to assist the medical attendant in determining that fever exists.

There are many diseases in which fever plays an important part, and there are a good many distinct forms of febrile diseases. Hence a great variety of treatment will be required to combat the different and distinct poisons which cause each of them. But there are certain *general principles* of treatment which applies to all of them.

GENERAL PRINCIPLES OF TREATMENT IN FEVERS.

The Author will here lay down certain general principles of treatment which can be used in *all* fevers, and he trusts the *general reader*, and *heads* of families, will pay particular attention to them, and inasmuch, as he has subjected them to a *crucial* test in his own practice, and found them to be *thoroughly* reliable, he does not think it egotism to suggest that the busy practitioner will also do well to give them a careful perusal.

The annual loss of life from fevers of various kinds is frightful, and the marked success which has attended the practice of some physicians leads us to presume that grisly mistakes in practice are *often to blame* for the terrible loss of life in those diseases from which patients recover when under a proper and rational practice. The Author wishes to assert with as little bitterness as common decency will permit, that he believes that at least one half of all the cases which die of fever, die either because of the inefficiency of the physicians' care, or because his overdrugging with poisonous doses of medicine *actually kill the patient*.

The fact that the medicines which the physician prescribes are *strong* is not the point of danger. We want strong medicines. *Weak* medicines are of but little use. The danger arises from prescribing strong medicines in *poisonous doses*, and in prescribing for the *wrong conditions*. Medicine can have but one of two actions, viz.: a *right* action or a *wrong* action. They never can have a

right action except when they are prescribed in a *proper manner and dose*, and for the *condition which exists at the time the prescription is made*. Let this maxim be forever in mind, not only in fever but in every other disease. We will now notice the treatment in the various stages of fever.

TREATMENT.

It is well to be on the alert, and detect the symptoms of the incubatory or first stage of fever. (The reader will find a description of the various stages of fever a few pages back.) If this be done, an appropriate treatment may prevent the fever from developing. The following is a good treatment to arouse the functions of the system, and combat the accumulation of germs of disease in the system. You will have to get it filled by a druggist.

Take sulphate of quinine 1 drachm,
Extract gentian $\frac{1}{2}$ drachm,
Vallett's mass (iron) 40 grains,
Piperin 10 grains,
Extract nux vomica, 7 grains,
Extract belladonna, 3 grains.

Mix into a mass, and put it into twenty capsules, or make into twenty pills. Dose: for an adult, one every five hours, till four a day are taken.

See that the bowels are kept regular.

A good prescription for constipation is the following:

Take fluid extract of Cascara Sagrada, 2 ounces.

Glycerine, 2 ounces.

Mix.

Take one or two teaspoonfuls at bed time, as needed to move the bowels. See *table of doses* and regulate to age.

In addition to the above give the skin a thorough bath every other day, with water as hot as can be borne, using castile soap and rubbing thoroughly afterward with a rough towel.

If the back pains, and the urine is high colored and scanty, use the following:

Take Acetate Potash, 4 drachms
Fli. extract cornsilk, 8 drachms.
Simple elixir, 3 ounces.

Mix, and take a teaspoonful three times a day, between the doses of the capsules prescribed above.

If this course be pursued in the first stage of fever it will prevent *nine* out of *ten* cases from ever fully forming and "nip them in the bud," so to speak.

Second Stage.—In this stage the disease is farther advanced and the treatment is radically different from the preceding. In this stage the patient, you will remember, is cold and full of pain.

The best treatment that could possibly be given him, is to at once plunge him into a bath tub of water as hot as he can stand it, and keep him there until he gets warm and sweats freely. After he gets warm take him out and rub him thoroughly with rough a towel until dry. If necessary to warm him in extreme cases while he is in the bath, let him swallow one and a half ounces of the best whisky. If this is not sufficient you may give him a half cup of hot ginger tea, with five or ten grains of powdered capsicum. These, with the bath and whisky, will stimulate him in a powerful manner. In the most extreme cases the dose of whisky may be repeated.

If this treatment does not warm him up a physician must be at once summoned, as no time is to be lost. *Remember* that the water of the bath must be kept as hot as he can bear it. But the convenience of the bath tub is not always at hand and in such cases we must resort to other means. In the absence of the bath tub of hot water the patient should be placed in bed with hot bricks, hot jugs of water, or hot soap-stones placed about his body, limbs and feet, and be warmly covered. The room must be kept *hot* until the cold stage passes off. One and a half ounces of the best whisky, and one teaspoonful of paregoric, with from five to ten grains of capsicum, may be given at a dose in half a cup of water, as hot as the patient can drink it. This in extreme cases may be repeated in half an hour. If this does not stop the chill you must at once send for the doctor. Opium, in some form with quinine, and both in large doses combined with suitable stimulents of a milder character are the agents which he must now use if he saves

the patient. Pardon me for suggesting what he *must* do, for I have been along the "line," and I think I *know* the agents which *must* be used to revive the patient. The only reason that I advise you to send for a physician in these cases is that only a *thorough* knowledge of physiology, therapeutics, and materia medica can enable one in *extreme cases* to push our remedial agents to their *utmost* limit with safety.

It may be that some of my temperance friends may object to the liberal use that I make of whisky as a stimulant. But I beg leave to say in full view, I trust, of a *thorough knowledge* of our materia medica, that for a diffusive stimulant which exerts a *sudden* and *all pervading* action, that we have no agent so smooth, so *certain*, and so harmless as alcohol in some of its various forms, of which I regard good whisky as the most available and reliable that we can generally obtain close at hand. No fears need be entertained by the most scrupulous that one or two doses given under circumstances of great depression, will create the slightest appetite for the drug as a beverage. It will be observed during the course of this work that I do not prescribe alcoholic drinks as an habitual remedy in any disease. I only prescribe them in cases of sudden emergency—their proper sphere in medicine, as outside of this they are always injurious when given as an undiluted beverage to the patient.

Third Stage of Fever.—We have now come to the most *important* stage of fever. This is the stage upon which the battle for life must be fought as a rule. It is here that fever rages in all of its agonizing supremacy. It is here where true medicine shines in its brightest light. The poor, despairing, agonizing patient is before us, racked with pain, burning with fever, while every function of the system is checked in its natural operations. Something must be done. What shall it be? The poor patient is unable to think for, or to help himself. His life is in your hands, as much as the helpless infant in the cradle. It is here that countless myriads of victims have been furnished for the graveyard by arrant quackery or misguided judgment. May God in his mercy grant that I shall make no mistake here, which

shall echo and re-echo in many a sad heart, for the loved and lost who might have been saved by timely and judicious counsel.

Our object in this stage is three fold, viz:—to remove the fever and restore the natural functions of the system, and throw off, or neutralize, the existing poisons in the system.

First Step in Treating Fever.—Our first step in the treatment of fever is to reduce the heat, or temperature, of the body. Elevated degrees of temperature, if kept up for any considerable time, are always injurious to the structures of the human body. Fever heat always produces a *waste of tissue*. The body gradually burns up, so to speak.

In the reduction of fever by external means we first and most emphatically desire to mention *water*. There are several ways in which water may be safely used [in reducing the temperature of the body.

The *first* method which I shall suggest is placing the patient in a bath tub filled with water warm enough *not to chill* him. He should be kept in the water until he is in a good sweat. Keep the water quite hot. Rub the patient's body all over thoroughly with castile soap so as to open out the pores of the skin and remove all filth. When he comes out of the bath, rub him at once, and thoroughly, with warm, dry towels. Then place him in bed, being careful all the time not to get him chilled. Be careful to have his bed warmed before he gets into it so that it will not chill him. A chill at this time would be liable to produce dangerous internal congestion, and lead to still higher fever, besides endangering the life of the patient. The bath may be repeated once or twice a day where the fever runs high. The water must be warm enough to the patient to be comfortable when he enters the bath. The temperature of the water can, in some cases, be gradually reduced while the patient is in the bath by adding pieces of ice, or where ice cannot be had, by taking out some of the warm water of the bath and replacing it with cooler, till the temperature of the bath is sufficiently reduced. The temperature of the bath may in some cases be reduced gradually 20 or 30 degrees below the natural temperature of the body.

There are some cases in which the cool bath may be decidedly better than the warm bath first mentioned. The Author ordinarily prefers the hot bath in *lung* and *throat* troubles accompanied by fever. But the cool bath as last mentioned may often be used with the greatest profit in typhoid and typhus fevers, also in high grades of malarial, or typho malarial fevers, as well as in malignant cases of the eruptive fevers where the temperature runs very high.

Where the cool bath, as last enumerated, is used, the patient should be kept in the bath until the temperature and pulse are reduced to a normal standard.

In extreme cases of high temperature the cool bath may be used from two to six times a day. It may be used often enough to *keep the temperature reduced*. Don't forget when putting the patient to bed that he must be placed between warm blankets. Permit me to say here that the bath is our *first* and *best* means of reducing the temperature. It is nature's own remedy, and if properly used is perfectly safe.

Where the patient is not supplied with a bath tub other means of applying water should be used. In this case one thing should never be neglected, viz.: the patient should be thoroughly sponged off all over with water of a temperature that is as cool as the patient can comfortably bear, and it is very beneficial to soap the body thoroughly with castile soap and wash it off. The soap softens any foul secretions which may have filled up the pores of the skin, thus allowing free evaporation of poisons.

After this the patient may be wrapped in a wet sheet wrung out of cool water and then be thoroughly covered with warm blankets. A piece of oil-cloth may be put under him to keep the water from soaking through, and wetting the bed clothes. He should be kept in this from fifteen minutes to half an hour, or until the temperature is markedly cooled off. Should chills and shivering attack the patient, and his lips and finger nails turn blue, he must at once be removed from the wet pack. Should the wet pack be again tried, in such cases it must be wrung out of hot water, and kept on as long as directed for the cool pack.

After the patient is removed from the pack (which may

be taken on a lounge convenient to the bed, if preferred), he should be at once rubbed dry, and placed in a dry, warm bed, with sufficient covering to keep him from chilling.

Where there is local fever, a cold wet bandage may be laid over the feverish parts, and be renewed as often as occasion requires, till the local fever is reduced. Local wet packs may be used over the bowels in cases of high and general fever in children with the very best results. It frequently occurs in children that the fever will run so high that their systems are too weak to stand medicines which are strong enough to reduce the fever. In such cases you *must* call in the aid of *water*, or lose the patient.

The wet pack will fully repay you when you observe its cooling, grateful influence, and see the little sufferer cool down, and pass into refreshing sleep. Where the fever runs *high* the cloth should be wrung out of water just as it comes from the well. The child will cry when you put it on, but cover him warm, and in a short time his fever will begin to cool down. Renew the cloth as often as it gets hot till the fever cools, and then discontinue it.

Be sure when you get through using it that no wet clothes are left next to the patient. Everything about him must now be dry. Should the fever rise again, the wet local pack must be again resorted to, till the fever ceases to rise high.

The *local wet pack* is also of equal efficacy for *adults*.

The whole body should be sponged, according to the severity of the fever, from once to five or six times a day in salty water, or in water and vinegar.

Where the sweat smells sour, I prefer a heaping teaspoonful of common soda to a quart of water for purposes of the bathing. The temperature of the water may be made agreeable to the patient. In extremely depressed cases of fever, the patient may be sponged off once in two hours with pure alcohol. This is especially excellent where a profuse and exhausting perspiration attends the fever.

When the patient's hands, or feet, are persistently cold, they should be frequently soaked in water as hot as the patient can endure it. After going to bed the patient should

have hot irons, bricks, or jugs of water, placed to his feet to keep them warm. Be careful while bathing the patient's feet to keep his body from getting chilled.

Medication in Fever.—Not only external applications but *internal remedies* are necessary in the treatment of fever.

The state of the *stomach*, and bowels, must be *at once* investigated.

If the patient has a feeling of weight, or sickness at the stomach, he should at once be given a mild emetic until his stomach is thoroughly cleansed. No fear need be felt that this will hurt him.

The following emetic is *perfectly safe*:

Pulverized lobelia seed, 2 drachms.

Pulverized ipecac, 1 drachm.

Pulverized capsicum, 10 grains.

Mix, and triturate thoroughly.

The dose is 2 grains in a swallow of warm water, once in ten minutes, until the patient has vomited thoroughly.

The dose for children is about one-half as much. Each time after the patient vomits, or when he feels very sick, give him a free drink of water as warm as he can drink it. This will always relieve the pains and cramps attending this vomit. When the vomited matter from the stomach comes up clear, then the stomach is cleansed, and no more vomit need be given for that time. It is well to repeat the emetic every one or two days in fever, as the stomach becomes so foul with mucus, impartially digested food, or biliary matters, that the food taken into the stomach cannot digest, or absorb. Neither can the medicines which are taken into the stomach absorb and have their proper effect upon the system.

A foul stomach is at the bottom of about one-half of the cases of fever in children, and a gentle emetic to cleanse their stomach is often all the medicine they need; after which the fever subsides, and they break out in a free sweat and soon get up and go about their play.

As a rule the bowels should be moved freely at the commencement of fever. Ordinarily I prefer the saline ca-

thartics, epsom salts, rochelle salts, crab orchard salts, sedlitz powders, or sprudel salts. Enough as a rule should be given to move the bowels freely at the commencement of a fever.

Sprudel salts is a great favorite with me. The dose for an adult ranges from half to one teaspoonful in two-thirds of a glass of water. Repeat in two hours if it does not physic. This remedy not only cleanses the bowels, but exerts a favorable action on the blood, and is very pleasant and safe. Crab orchard salts is also a very smooth and prompt physic, and may be taken in teaspoonful doses in cold water.

Where physics will not operate the patient may take an injection of one or two quarts of warm water with a teaspoonful of salt to the quart. A tablespoonful of epsom salts dissolved in one or two quarts of water is also an excellent injection to move the bowels.

Physics may occasionally be given as required during the course of fever, but great care must be used not to physic much during the course of eruptive fevers. In eruptive fevers it is better for the bowels to be slightly constipated during the *continuance of the eruption*, as otherwise the blood might be drawn too much to the vital centers of the system, causing the eruption to disappear from the skin, and thus affect the internal organs. Many cases have been killed by this mistake. During the continuance of an eruption, the termination of the blood must be constantly *thrown to the surface*.

Special Sedatives, or Remedies to Reduce the Circulation and Heat of the Body.—As a rule it is not only necessary to use the applications of *water*, and *emetics*, and *physics*, but it is, also, necessary to use remedies which exert a more permanent and persistent action in deducing the *rapidity* of the *pulse*, and in promoting the secretion from the various excretory functions of the body. These last mentioned agents are often alone sufficient to remove fever and aid nature in the restoration of health.

The *first and greatest* of internal remedies for the reduction of the *pulse* and the *temperature*, is *Aconite*. The

way in which to use this remedy is to use it in small doses as follows: Take one drop of mother tincture of Aconite, water one-half glass, stir thoroughly and give one teaspoonful once in twenty minutes, until the pulse comes down to its *natural* beat.

I recommend the mother tincture, which is only made at Homeopathic drug houses, because it is more *reliable*. Where this cannot be procured, use four drops of the ordinary tincture of Aconite, which is found in the drug stores, in the same manner, viz: in a half glass of water, and give the dose same as the above.

Should the patient be enjoying sleep at night he should not be awakened to take medicine unless the fever be running *very high*. He *must* have sleep. In the morning, however, the medicine may be given regularly if the fever runs high. When the pulse and temperature are sufficiently reduced, the time between the doses may be lengthened out to half an hour, forty minutes, and then an hour. The reason that aconite has fallen into disrepute with some physicians is because they have given it in *too large* doses. They have given from three to five drops of the tincture at a dose. Such large doses exert a paralytic effect upon the action of the heart, and do not produce the proper action upon the *heart, pulse* and *skin*. But the small dose, frequently repeated, will give us the effect desired wherever the case is within the reach of human skill.

The dose of aconite for children is about one-half of that given for adults. When prescribing medicine in homeopathic doses, the difference in the size of the dose is not so marked as it is in the other schools of medicine. You ask for an explanation? I refer you to the schools of experience for an answer. Whatever may be the opinion of the reader the *facts remain the same*.

Where there is a termination of blood to the head, bromide of potash should be given.

Bromide of potash, 1 ounce.

Simple elixir, 4 ounces.

Mix. Take a teaspoonfull once an hour, until the head cools off.

Where spasm occurs, twenty to fifty drops of tincture of gelsemium may be added to each dose of the bromide of potash, until all spasmodic action is controlled.

The dose of the bromide of potash and of gelsemium must be regulated according to age by the "Table of doses," heretofore given.

When the tongue has a yellow color, the alkaline cathartics, as heretofore prescribed, must be given. In addition to them, give the following:

Mother tincture nux vomica, 1 drop.

Water, two ounces.

Mix. Dose, a teaspoonful once in two hours.

When the tongue has a brown coat upon it, and is dry, you may give the following prescription:

Hydrochloric acid, dilute, 2 drachms.

Water, half a glass.

Mix. Take a teaspoonful of the mixture once in two hours, until the brown color leaves the tongue.

Should the coat be a dirty white, instead of the acid, give the following prescription:

Sulphite of soda, 1 drachm.

Water, half a glass.

Mix. Dose a teaspoonful once an hour until the *dirty white* coat leaves the tongue.

When the tongue is coated with a bright white coat, with red papillae sticking through it, this may point to scarlet fever, or blood poisoning of some kind. The same may be said in cases where the breath is very foul. In such cases *antiseptics* must be given internally. The best antiseptics that can be given internally, are chlorine water, charcoal, wild indigo, myrrh or carbolic acid, or dilute hydrochloric acid. I generally use the wild indigo first, as follows:—

Tincture of wild indigo, 5 drops.

A spoonful of water.

Mix, and take at one dose.

Repeat once in two hours, until all bad odors leave the breath. Should the bad odors in the breath occur again, the same dose may be used as before.

Charcoal may be used in teaspoonful doses three times a day, and is an excellent remedy. Where the discharge from the bowels are offensive, a half teaspoonful of powdered sulphur may be used instead of the charcoal.

Carbolic acid may be used as follows:

Carbolic acid, 10 grains,

Water, one-half glass.

Mix: Take a teaspoonful once in two hours.

When myrrh is used, ten drops of the tincture may be given in water once in two hours.

The practice of giving quinine in large doses during the fever stage, to reduce the fever is very pernicious and of great danger, except in malignant intermittent, or pernicious fever. It often leads to a sad wreck of the nervous system, as well as fails to save the patient. The agents given before for this stage in this chapter, are much better. Large doses of quinine during the fever stage often leads to permanent ringing of the ears and partial deafness, which is *incurable* when produced from this cause.

Food During the Third Stage.—The best food during the hot stage is milk. The milk should be *very fresh* and should not be skimmed. The patient may have from one-half to one glass every three or four hours. If the milk should hurt the stomach give the patient from five to eight grains of saccharated pepsus after each drink of milk. A raw egg beaten thoroughly and stirred into a glass of milk, with one or two tablespoonfuls of the best whisky or brandy, is also excellent food where the patient is much depressed and needs a stimulant. *Alcoholic stimulants* are the most *harmless* stimulant to the system that can be administered during the fever stage, as their final effect is rather *cooling* than heating.

Beef Essence is, also, a strictly first-class diet in all fevers which have a typhoid tendency. The way in which to make beef essence is to put a piece of lean beef as large as will conveniently go into a small tin pail, or better still, into a fruit jar which has a screw top, with a ring of rubber around the top, so as to prevent any water from leaking in

from the outside. Then set the fruit jar into a pot of water and boil for three or four hours, when the strength of the beef will ooze out in a thin liquor in the jar. After the liquor is poured off of the beef, then the beef may be squeezed and the juice mixed with the liquor that has already boiled out of the beef in the can. The beef essence thus extracted may be salted and peppered to suit the patient's taste. Two ounces of this may be given to the patient once in 4 hours during the day time. If the essence seems too strong for his stomach, you may mix it with warm water, and thus make a tea of it and let him drink it in that way.

During the hot stage the patient should not be fed any solid food, as he can then only *absorb* and digest liquid foods. Whenever his stomach becomes foul and refuses to receive food, a mild emetic, such as I recommended under the beginning of the third stage, may be given to cleanse the stomach. In a half hour after, this nourishment may be administered. If the patient's stomach becomes sour, give him one-fourth of a teaspoonful of bicarbonate of soda, which will at once sweeten it, and have a tendency to reduce the fever, as a sour stomach always heightens a fever.

Permit the patient during the hot stage to drink freely of cold water.

Fourth Stage of Fever—If the patient's case has been properly treated up to this time, the surface will become cooler and moister, and the tongue will begin to clean, and the kidneys and bowels to act more naturally. The patient as a rule feels weaker now than when the fever was so high.

His treatment must now assume more of a *tonic* form. The tonic put up in capsules which we recommended in the *first* or incubative stage may now be used with the greatest benefit. The fever drops should be used as long as any rise in *temperature* exists. The profuse sweating which often comes on after the fever has gone down is very exhausting to the patient and must be held in check. The tonic above referred to is generally sufficient. Where it is not sufficient, two grains of quinine may be added to each dose. The doses of the tonic should be continued for several days after all

fever has left the patient. Their frequency may be reduced to three times a day as soon as all sweating has stopped.

The patient should use the liquid food prescribed under the former stage, until his stomach receives more solid food kindly.

Oatmeal or corn meal gruel, or oyster soup, are good for a change to more solid food, broiled beef steak or broiled wild game may be next used with a little brown toast. The patient may now drink some tea or coffee if he likes. Great care must be used not to over feed the patient as his appetite returns. Neither must he be allowed to go out doors and expose himself to cold, damp air until his system has thoroughly recuperated. Care must be paid to the patient's stomach and bowels after he gets up, not to allow them to become deranged.

A remedy has been suggested for his bowels, viz: the preparation of cascara sagrada. To aid his digestion and stomach, the following will be found excellent.

Take Pepsin Scales, 50 grains

Tincture of Gentian, (com.) one ounce

Acid Hydrochloric dilute, 8 drachms

Port Wine enough to make one pint. Mix.

Take from one to two tablespoonfuls before each meal. This may be discontinued as soon as the stomach can digest food properly without it.

NOTE.—When there is a flushed face accompanied by much heat of the head, with or without delirium, bromide of potash may be given in twenty grain doses once in two hours, until the symptoms are relieved. It is perhaps the best remedy that we have for this condition. Each dose may be given in two or three swallows of cold water.

TYPHOID FEVER.

Typhoid fever is a disease which pursues quite a definite course of from 20 to 30 days in duration. It occurs in all localities, but more frequently in the older settlements in non-malarial districts. However, it may become complicated with malaria, when it becomes typho malarial fever. Modern research has developed the fact that the producing

cause of the disease is a living germ which, when taken into the blood, multiplies until it so infects the system as to produce with great regularity all of the phenomena peculiar to the fever.

The most favorable conditions for the production of the germ are surroundings of filth, and want of drainage and general hygiene. Over crowded sleeping rooms, sewer vaults which require disinfection, improperly aired, or filthy, or damp cellars, filthy yards, general want of bathing, cleanliness, proper food etc., are all fruitful factors in the production of typhoid.

Typhoid is an infectious and contagious disease, the most fruitful source of infection probably arising from the stools, the bedding, and the breath of the patient. While many persons escape infection when coming in contact with persons suffering from it; the number who do become infected is sufficiently large to warrant the greatest caution. It is fair to presume that the disease is much more contagious after it is fully developed when the patient's breath and all the secretions become fully charged with the typhoid poison.

Bed clothing, after the patient has lain in them for some time, and the *stools* of the patient, are probably the chief sources of infection. The room in which the patient is kept should be kept constantly disinfected, and the stools of the patient should be first disinfected and then *buried*, and never thrown into the privy vault where they might be the source of future contagion.

SOURCES OF GREATEST DANGER.

The sources of greatest danger in typhoid fever are:
1. High temperature. 2. Ulceration, followed by perforation of the bowels, which allows the contents of the bowels to escape into the peritoneal cavity, causing fatal inflammation. 3. Hypostatic pneumonia accompanied by hepatization of portions of one or both lungs. Ordinary pneumonia may also affect the lungs. 4. Blood poison may become so extreme that the patient cannot live. 5. Failure of the heart's action: This must be carefully guarded against when the pulse rises to or above 130 per minute.

The patient cannot live long with the pulse running at such a high rate of speed. 6. Failure of the digestive functions. 7. The exhaustive sweating in the later stages of the disease. 8. Diarrhœa. 9. Bed sores. 10. Inflammation of different organs of the body, with softening of the liver, spleen, pancreas, etc. 11. Paralysis, more or less general of the nervous system, particularly of the auditory nerve, or nerve of hearing.

I regard the foregoing as the principal points of danger in this terrible disease, and they should be constantly kept in mind and guarded against.

SYMPTOMS AND COURSE OF TYPHOID FEVER.

In giving the symptoms and course of typhoid fever I desire to be as brief as possible, only giving points which are absolutely necessary in a work of this kind.

This disease more often afflicts persons under thirty years of age. It may commence very suddenly, or it may come on so gradually that the patient cannot fix the precise date of its commencement. Often for two or three weeks prior to the commencement of the fever the patient feels languid and his features are apt to look thin and blue, or sallow and pinched. He is liable at this time to have bad dreams, and suffer more or less loss of appetite and energy, with irregularity, or perversion of the secretions. He may have more or less headache with occasional pains in the back, or muscles, and soreness of the muscles. He may be so little affected by the disease for a week or so after its commencement that he will not keep his bed, preferring to lounge about with his clothes on. *Walking cases* are not compelled to take their bed permanently. These cases are rare, however.

At first the patient generally has slight chilly sensations, alternated with flashes of heat. The pulse rises somewhat, and the tongue is slightly coated with a white fur. The appetite begins to fail. The bowels are either loose, or very susceptible to the action of cathartic medicines. After the disease is fully formed the chills cease, unless some intercurrent inflammation supervenes.

The fever gradually increases in severity till about the eighth day. From this to the fourteenth day is generally the period of highest fever. The fever generally abates from this to the end of the disease. Cases which have received improper treatment, or exceptionally severe cases, often form an exception to this rule.

The temperature of the fever generally rises to 105 or 106. When it runs up to 107 or 108 the case is very grave indeed, and is apt to be fatal. The patient can not long live at the last named temperatures. The patient's face becomes dull, and expressionless, and he becomes very helpless. The surface gets dry and very hot.

The patient may either be restless and excitable, or listless and stupid. He is generally both during the course of the disease.

Patients generally suffer from delirium. At first the delirium is generally active, but afterward it becomes muttering and of a low grade. The low muttering shows a deeper intensity of the poison in its work upon the system.

The pulse is generally small and rapid, running up to 110 to 140, or even 160 a minute. The case is very grave when the pulse of an adult remains long at 130 or over, a minute. However, the pulse may sometimes be full and strong, not running over 90 to 100 a minute.

The tongue, as the disease advances, generally becomes narrow and pointed, with red tip and edges. As the bowels become affected, a red stripe appears along the center of the tongue. Later in the disease the tongue becomes very dry, brown and cracked, often bleeding and sore. It is parched in the head. This condition shows an utter failure of stomach and intestinal digestion. Sordes form upon the teeth, and gums and lips.

The patient's face assumes a strikingly purple, or dusky hue, as the disease advances and is peculiarly expressionless and dull. Headache to a greater or less degree is a very constant symptom. The patient suffers with a sore or bruised feeling, through the muscles. He is liable to suffer much with a feeling of weariness, and loss of sleep. Nose bleeding is a common, though not a dangerous symptom.

The bowels often either suffer from diarrhea or hemorrhage, or both, and are very susceptible to the action of cathartic medicines.

Bloating of the bowels and tenderness on pressure, are hardly if ever absent. Rumbling of wind in the bowels is, also, common.

Rose colored blotches, resembling flea bites, break out on the body and sometimes on the limbs and face, from the seventh to the fourteenth day, each blotch lasting three or four days.

Sometimes the patient suffers from a profound and continued sleep, called coma, from which it is difficult to arouse him. This is always a grave symptom.

Sometimes a dry, harassing cough is a very distressing symptom. Where the patient coughs up much blood it indicates a degree of inflammation often amounting to Pneumonia.

Great yellowness of the skin points to grave complications of the liver.

The hands and feet are generally cold.

The urine is scanty and high colored. The stools are generally yellow.

Ulcers generally form upon the inner surface of the small intestines, sometimes eating their way through the bowel, allowing its contents to escape into the abdomen, producing fatal inflammation.

ringing in the ears is a common symptom, the hearing often becoming partially destroyed. Large and very intractable bedsores sometimes form on parts of the patient's back on which he lies. In his delirium the patient may pick at the bed clothes, or at imaginary objects in the air. Sometimes the tendons at the wrists twitch. (*subsultus tendeurum*). Occasionally the patient suffers from cramps and spasms. The fever is lowest in the morning and gradually rises until about midnight, when it begins to subside until five or six o'clock in the morning. The patient's breath generally becomes very foul.

Diagnosis.—It is often quite difficult to determine for about one week whether the fever is typhoid or not. The

most important points to enable those who are not educated physicians to determine the nature of the disease, are as follows: Typhoid fever generally comes on insidiously and gradually reaches its highest point about the eighth day.

The bowels have a *tendency* either to be *loose* or *easily* moved by cathartic medicines. The bloating of the bowels and tenderness on pressure over them, especially on the *right* side of the abdomen, and the *nose bleeding*, however slight, and the cough which attends the development of the fever, the rose colored eruptions which appear about the *seventh* day; the evening rise and the morning fall of temperature, and the slow and insidious manner of the approach of the disease with a gradual increase of the temperature of one or two degrees a day until about the eighth or tenth day, and after that the gradual decline, all taken together are not liable to be found in any other disease.

Prognosis.—The outcome of the disease is generally favorable where it is properly treated, and where the patient is not *killed* with *strong medicine* or *starved to death*.

The favorable signs are as follows: After the eighth to the twelfth day the tongue becomes moister and gradually cleans off from the edges. The patient begins to take more notice of surrounding objects. His delirium subsides. He acts more *natural*. The fever lowers and the tongue cleans from the *point* and *edges* inward. The soreness and tympanitis of the bowels disappear, his stomach becomes more tolerable to food, the patient becomes irritable and peevish, delirium ceases, and sleep becomes more natural and refreshing.

Unfavorable symptoms are the unrestrained increase of fever after the eighth day. The delirium becomes low and muttering, the wrists twitch, the patient remains unconscious, the tongue dries up till it looks like a scab, and the patient gradually sinks.

A good symptom is for the tongue to clean gradually from the *point* and *edges*. When the tongue cleans in *patches* it indicates a slow return to health. When the bowel is perforated by an ulcer, rigors and general collapse

generally set in. Such cases are liable to end in death in the great majority of cases.

Treatment.—Permit me to say to my dear readers that by a proper course of treatment most cases suffering from this terrible disease, which is so fearfully prevalent in all parts of our country, can be safely brought through.

The dread fatality which attends it is undoubtedly due to improper care and treatment. In a practice of over fifteen years I have never been so unfortunate as to lose a single case. I am sincerely happy to be able to make this cheerful announcement to you. The author is greatly disgusted and pained to note the terrible inefficiency which is displayed by the *average* physician in the treatment of this disease. I hope that if my readers are unable to cope with this disease *alone* with the directions which I here give them, that they will *insist* upon their family physician giving the treatment laid down in this little work a *fair trial*. Of course where complications arise he must be left to his own judgment.

The three *leading indications* to be kept in view in the treatment of this disease are: *First*, the reduction of the pulse and the temperature. *Second*, the proper feeding of the patient. *Third*, to control all inflammation and ulceration of the bowels.

To reduce the *rapidity* and strengthen the beat of the pulse, give the patient the following:

Take one drop of the *mother tincture* of aconite, (I prefer luyties) to one-half glass of water. Mix. Dose: a small teaspoonful every half hour for about fourteen to sixteen hours a day, according to the violence of the fever.

If the pulse gets very weak take one drop of officinal tincture of digitalis once an hour, until the heart's action becomes strong. Repeat the digitalis when the pulse becomes too weak again.

If the bowels are bound up at the commencement of the disease, give a teaspoonful, or two, of castor oil, or a sedlitz powder, or a level teaspoonful of sprudel salts. Be very careful not to give too much physic, as later in the disease the bowels are generally too loose.

When the patient suffers from diarrhœa give him the following:

Take dovers powder 30 grains,

Bismuth sub nitrate 1 drachm.

Mix. Triturate, make five powders.

Dose: one powder in three or four hours until the diarrhœa is checked.

This may be repeated wherever it is necessary to check the diarrhœa. For children smaller doses must be given, according to age or strength of patient. Where the patient is very susceptible to the influence of opium, two or three grains of tannin may be given, instead of the dovers powder, with each dose of bismuth. Another excellent prescription for the diarrhœa is:

Take tinct catechu,

Tr. opii camphorata,

Syr. rhubarb, of each an ounce.

Mix.

Dose: a teaspoonful once in 4 or 5 hours until the diarrhœa is checked. Repeat if the diarrhœa again sets in.

To reduce temperature use water the same as recommended under the head of *fevers in general*.

When the bowels become swoolen and tender on pressure apply the following:

Take spirits turpentine one-half ounce; hog's lard, or sweet oil, two ounces. Mix thoroughly and rub the bowels once in three hours. After each application of the above apply a hot corn mush poultice over the parts till all swelling and tenderness are gone. Internally for this sore and bloated condition of the bowels, give the following.

Take one-half teaspoonful of wood charcoal. Drop into each dose of this five drops of spirits turpentine. Repeat this dose once in four hours until the swelling, or bloating, goes down.

When the tongue becomes brown use the following:

Take hydrochloric acid dilute, three teaspoonfuls.

Water one-half glass.

Mix.

Dose: Give two teaspoonfuls in one-fourth glass of

water once in two hours until the brown coat leaves the tongue.

When the breath gets very sick and foul use the following:

Take one drachm of chlorate of potash.

Tincture wild indigo, two drachms.

Water one-half glass.

Mix.

Take a teaspoonful once an hour till the bad odor leaves the breath; repeat when necessary. This prescription will not interfere with any other medicine which you may give.

Where the above does not purify the breath, a half teaspoonful of charcoal with five drops of tincture myrrh may be given once in four hours. If this is not sufficient, the following is good:

Take carbolic acid, ten drops.

Water half a glass (four ounces).

Mix.

Dose: a teaspoonful once in two hours.

The above measures not only sweeten the breath but they are powerful factors in destroying the germs of disease upon which typhoid fever depends.

For delirium, when there is much heat in the head, use cloths freely, wrung out of ice water or very cold water. Internally you may give to adults thirty grain doses of Bromide of Potash once in three hours in one-fourth glass of water.

In the later stages of the disease, when the patient has free sweats, give three grain doses of sulphate of quinine, with three grain doses of Dovers powder, every four or five hours, or as often as necessary to control the excessive sweating of the patient. Where the foregoing will not control the profuse sweating of the patient, four drops of the Tincture of Belladonna may be added to each dose.

In the later stages the patient must have quinine and tonics to support the system; but the author believes that the large doses of quinine given during the *active* stage of the fever to be *prostrating* to the patient, and should not at

this stage be given. These large doses of quinine prostrate the patient, without shortening the disease, and in many cases lead to permanent ringing of the ears, with partial or total deafness of one or both ears.

During this disease the patient must be carefully fed. Milk and beef essence are the two best kinds of food. Where milk alone is used the patient should be fed two-thirds of a glass of milk, just as it comes from the cow, once in four hours.

Where the patient is very much exhausted a raw egg may be thoroughly beaten, and a suitable amount of nutmeg and sugar added to suit the taste, and the whole to be stirred into a glass of milk, with from one to two ounces of whiskey, the patient to be given half an ounce in three hours.

Milk, as a rule, is safe for typhoid patients, and they should be fed milk regularly in all stages of the fever. When the fever runs high they cannot digest much, but they can absorb. They must have food to counteract the blood poison in their system. After the fever has gone down they must have suitable animal diet, such as oysters, beef-juice, etc., till they can digest stronger food. At this stage they should have artificial stimulants and digestive agents. A good one is the following:

Take, pepsin scales, grains fifty.

Acid hydrochloric, dilute, four drachms.

Tr. gentian, compound, one ounce.

Port wine, enough to fill a pint bottle.

Dose: a table spoonful before each meal.

Don't forget to feed the patient during this stage of fever. Milk, oyster soup made with milk, and beef juice are the best.

Give six or eight grains of pepsin after each portion of food given, or a dose of the above wine-bitters.

The best way to get beef juice is to take a round steak, and fry it very rare, then squeeze the juice out of it. Give a teaspoonful of this once in two hours, or a table spoonful, if the person has a strong constitution. Always give a few grains of pepsin with each dose, or the above wine-bitters.

The patient should be careful to avoid exposure after he gets up, and also be careful to avoid over-eating. Pepsin should be taken after each meal till the stomach gets strong.

The patient should use some tonics, like the following, after he gets up and around, for one or two weeks:

Take sulphate of quinine, two scruples.

Extract of gentian, one scruple.

Valletts mass, one scruple.

Extract of belladonna, two grains.

Piperin, ten grains.

Triturate, and fill twenty capsules.

Dose: one capsule four times a day, five hours apart.

One thing should have been earlier mentioned concerning treatment in this disease. When there is great prostration, from a desert to a tablespoonful of good brandy, or whisky, should be given each time before the patient is fed.

Another thing should have been mentioned, viz: The stomach should be cleansed every day, or every other day, during the course of fever, by using doses of the emetic powder, as directed under *fevers in general*. By doing this the stomach is kept clean so that food and medicine can be absorbed.

Lemonade may, also, be given the patient at pleasure, and as much cold water may be given as the patient desires.

Buttermilk mull is a very refreshing and acceptable drink to the stomach in the later stages of the disease. It may be made as follows: Take three parts of buttermilk and one part of water, mix. Heat nearly to a boil until flaky curds form in the mixture, then cool to suit the patient and allow him to drink it freely every three or four hours. This may be all the food which he will want for several meals at a time.

Two things I have failed to mention earlier in the treatment of this disease, viz.: the treatment of cough, and the use of disinfectants.

When the lungs become sore and the cough becomes annoying, the turpentine and oil and mush poultice may be used the same as over the bowels when they become sore and

bloated. At the same time the following may be used internally for the cough:

Take Tartarized Antimony, one grain.

Sugar of milk, 18 grains.

Mix, triturate and make 18 powders.

Dose: one powder every hour till the cough subsides.

For disinfectant purposes use the following:

Take carbolic acid, one drachm.

Water, one pint.

Mix.

Sprinkle over the bed clothing of the patient, and over the floor of the room in which the patient is kept, three times a day, and oftener, if necessary, to keep all rank smells down. This will have a strong tendency to keep others from taking the disease.

TYPHUS FEVER.

Typhus fever is a contagious disease, which in many respects closely resembles typhoid fever. Those who come in close contact with the patient, breathing his breath and the effluvia which arises from his clothing, generally take down with the disease in from a few hours to twelve days.

The disease lasts from ten to twenty days, according to the severity of the case.

An eruption appears from the third to the eighth day. The eruption is at first rose-colored and slightly elevated above the surface, and may appear upon any part of the body. The eruptions are generally very small and distinct, but may be, sometimes, in places as large as the thumb nail. The eruptions usually become darker as the disease advances. The eruption is apt to be quite purple, or almost black, in malignant cases. It nearly always disappears under pressure for two or three days after its appearance, when it becomes permanent. It generally lasts eleven or twelve days.

Fatal cases of typhus generally terminate in death about the end of the second week.

Causes.—1. Typhus fever is doubtless owing to a living germ which is taken into the system, and multiplies,

thus poisoning the blood, and thus producing the phenomena peculiar to this fever. The most favorable conditions for the production of the germ, as well as for its ravages upon the system, arise from filth and overcrowding in poorly ventilated apartments, or impure drinking water, about whose surroundings all hygienic regulations are neglected.

2. It is directly contagious.

3. Whatever impairs the vitality, or weakens the system, as insufficient, or poor food; or insufficient or filthy clothing; or intemperance, are all fruitful causes of typhus fever.

Symptoms and Course.—The first stage, or stage of incubation, is generally attended with such symptoms as usually precede all fevers, such as languor, loss of appetite, headache, wandering pains, constipation, etc. Sometimes, however, the disease is ushered in with a light, or heavy chill. Patients have been known who never rallied from the depression of the first chill, but these cases are very rare. Headache, more or less severe, follows the chill. The patient is often sick at the stomach, and sometimes vomits. The tongue at first moist, in one or two days begins to assume a brownish hue, and its color may deepen until it looks like a brown scab.

One strong characteristic of typhus fever is the great nervousness and prostration which generally compels the patient to take his bed from the first. The patient suffers from great thirst, constipation, and great dullness of mind, which soon passes into delirium. This dullness of expression, and confusion of ideas, is a symptom which is pronounced from the commencement of the disease.

The patient is either listless and indifferent, or suffers from delirium of all grades, from the low muttering variety to raving, furious madness.

His sleep is troubled by bad dreams, and affords the patient but little rest. Upon awakening from a troubled sleep of several hours he will sometimes declare that he has not had a wink of sleep.

The urine is heavy and high colored.

The pulse may range all the way from 110 to 140 or 150 beats a minute. It may either be very weak, or strong and bounding. The character of the pulse is determined, in a great degree, by the malignity of the attack, and the constitution of the patient.

A strong, bounding pulse, is more favorable than a feeble, irritable, wiry and rapid pulse.

The surface is generally very hot and dry during the first week. The temperature may vary from 100 deg. to 106 deg. Farenheit, or even higher by several degrees, in some fatal cases.

The breathing is generally very hurried.

Sordes appear upon the teeth, gums, and lips.

The tongue, as the disease advances, may get so dry, brown, and hard that the patient can scarcely protrude it from the mouth. It also trembles when he tries to do so.

The face, as the disease progresses, generally assumes a dark red, a purplish, or a livid hue.

A very peculiar odor, also, arises from the body, which is so unlike anything else that I cannot intelligently describe it to you.

Along with the stupor, the patient may pick at the bed clothes, or at imaginary objects in the air. He often experiences a distressing sensation as if he were falling downwards with nothing to support him.

Patients are liable to faint upon the least exertion. To raise a patient up in this condition might, as it has done, cost the price of a life. The patient, as the disease advances, suffers from intense prostration. In the later stages the patient may suffer from exhaustive sweating and the surface becomes cold and the patient chilly. This is a condition of great and *immediate* danger and must be promptly met, or the patient will die. His surface must be restored to its natural warmth and the perspiration controlled.

Convalescence is slow, but rarely leaves any grave complications after the patient is well of the fever.

Diagnosis.—The disease that we are most liable to confound with typhus fever is typhoid fever. It is very important that this should not be done.

In typhus fever the bowels are generally constipated in the first stage, and are not so subject to the action of cathartic medicines. *Tenderness* and *bloating* of the bowels are much less pronounced than in typhoid.

The patient suffers from an early and overwhelming prostration in a far greater degree than in typhoid.

He, also, suffers early from a very marked mental dullness, and the eruption comes out from the third to the eighth day, whereas in the typhoid it appears from the seventh to the fourteenth day, each patch only lasting from three to four days.

The dark, dusky hue of the countenance, with suffusion of the eyes, is, also, quite distinct from typhoid in which the countenance is apt to remain quite clear, and the eyes are often bright.

Treatment.—If properly treated from the start, typhus fever may generally be kept under control, and a favorable issue be the result. The greatest points of danger in typhus fever are: 1. High temperature. 2. Blood poison, with its attendant failure, or perversion of every secretion and function of the body, as well as destruction of tissue. 3. Rapidity of the pulse, with consequent failure of the heart's action. 4. Extreme prostration and consequent collapse. 5. Complications of the lungs, and also fatal diarrhœa of the bowels. 6. Other complications which are many, but do not necessarily occur as a part of typhus fever. But inasmuch as this work is for the use of the general reader, more than for the physician, we will recommend the patient to seek the aid of a skilled physician, where grave complications arise.

The first pronounced symptom that is apt to attract the attention of the ordinary observer in typhus fever, is the chill. This may be very slight, or be a very pronounced rigor. It may be of only a few minutes duration, or it may last for hours, and sometimes the patient never rallies from it, but passes into a state of complete collapse, which terminates in death. The best means to restore the patient's warmth is to dip him in a bath of water as hot as can be borne; but this is not generally convenient, as but

few are supplied with bath tubs, so we must resort to other means. A hot whiskey punch, and repeat in a few minutes, is good. In addition to the foregoing, a teaspoonful of aromatic spirits of ammonia may be given in a wine glass of warm water. A hypodermic injection of from one-eighth to one-fourth grain of sulphate of morphia, according to the degree of the collapse, would be a valuable addition to the foregoing. While internal remedies are being given, we must use every endeavor to warm the surface and the extremities by applications to the surface.

The room must be kept warm, and the patient thoroughly covered up in bed. He may be rubbed along his spine with dry, pulverized Cayenne pepper, or mustard, or oil of turpentine. The extremities may also be treated in like manner, after which hot cloths, hot bricks, hot irons, hot jugs of water, hot stones, etc., may be piled around him, till he comes out of his chill. After reaction is established, and the fever rises, we must direct our attention to controlling the fever, and sustaining the patient through the terrible trial through which he is now about to pass.

Where the stomach is foul it is well to give a light emetic to cleanse it. This must be repeated every day or two during the disease.

The emetic powder mentioned under Fever in general is the emetic which should be used as it is mild, and does not irritate, and is inclined to make the patient sweat. One or two grains of the emetic powder given once an hour, or once in two hours, is an excellent addition to other treatment to soften the skin. For this purpose not enough should be given to make the patient vomit.

Use water in this disease the same as is directed for its use under *fever in general*. In fact, follow the plan there laid down in *all respects* only where special exceptions or additional instructions are here given.

To commence with, in this fever, the bowels may be thoroughly cleansed by taking a sedlitz powder once an hour till the bowels are thoroughly moved. An occasional sedlitz powder may be given during the disease. Should

the discharge from the bowels become very offensive, a level teaspoonful of sulphur may be given the patient in the morning, and if it does not work off itself, sedlitz powders may be given in the course of ten or twelve hours, to clear out the bowels.

When the patient is very low, physics must not be often used. An injection of warm soap suds may be given in the evening to cleanse the bowels. The patient must be allowed to pass it off in a bed pan, as the exhaustion from raising the patient may be so great as to cause fatal fainting.

Don't forget to keep the patient's temperature cooled down by applications of cold water, by sponging with it, or putting a cold bandage around the body, renewing it as often as it gets *above the natural temperature* of the body; or the patient may be wrapped in cold, wet sheet packs, two or three times a day. He must not be left wrapped in these until he gets too weak. Twenty to thirty minutes at a time is generally long enough to remain in a wet pack which covers the whole body and limbs. The wet bandage around the body may be kept on as long as necessary to cool the temperature, care being taken not to allow the skin to become "parboiled," or shrivelled, by too *long continued* an application of water.

In low and exhausted conditions, a liberal supply of salt, vinegar, or alcohol should be added to the water in which the patient is daily sponged off. When the exhaustion is extreme the patient should be sponged all over with alcohol and water in equal parts (and in some desperate cases, with pure alcohol) as often as once in two hours.

Let me give you one general *rule* regarding the application of cold water to the surface: *Never* use it in this manner where it produces a *marked chill* to the patient and makes him cold and uncomfortable. Should it do this, the cold application must be *at once* removed, and warm water may, if desired, be used in its stead.

Always have an oil cloth beneath the sheet on which the patient lies, so as not to wet the bedding. Always wring the cloths sufficiently dry so that they will not drip before wrapping them about the patient. Always put dry

cloths between the wet bandages and the patient's clothing, so as to keep the patient's clothing *dry*.

Patients with this fever require a great deal of water to drink. Where they are drinking too much water, or where they prefer it when there is high fever, they may be allowed to frequently swallow small pieces of ice. When patients become delirious they may not call for water, but they need it just the same, and water must be fed to them out of a spoon freely. Where the temperature is extremely high, it is often a good plan to occasionally inject a pint of cold water into the bowel. This will cool the patient, and will be absorbed into the blood, supplying the demand of the system for water. This, however, would not be a safe procedure where *diarrhœa exists*, or after a recent confinement, or miscarriage.

The patient may be allowed lemonade freely during the disease, with but little sugar in it, however.

For fever drops, No. 1:

Take Mother tincture of aconite root (Luyties of St. Louis preferred), three drops.

Water, one-half glass.

Dose: a teaspoonful once an hour from six o'clock in the morning until late in the evening, except when the patient is enjoying natural sleep from which it is not best to arouse him. Be careful not to mistake coma for natural sleep.

Fever drops No. 2:

Take three drops of Fowler's solution of arsenic.

Water one-half glass.

Dose: one teaspoonful half way between the doses of No. 1. Keep these doses up while the fever is high. As the fever comes down the length of time between the doses may be lengthened out gradually until a dose is given only once an hour.

When the action of the heart becomes very quick and feeble, 15 drops of tincture of digitalis may be added to fever drops No. 1.

When the tongue becomes *brown* and the breath offen-

sive give the patient the following until the *brown* coat leaves the tongue:

Hydrochloric acid, dilute, 40 drops.

Water, one-half glass.

Mix. Take a tablespoonful in a little cold water once in two hours during the daytime.

If the breath still remains offensive after giving the acid mixture for twenty-four hours, give the following:

Chlorate of potash, 40 grains.

Water one-half glass.

Mix and dissolve.

Dose: one teaspoonful half way between the dose of the sour drops.

The last two prescriptions need in no way interfere with the doses of fever drops as heretofore prescribed.

Should the patient become delirious he should have medicines addressed to this condition. If the delirium is *active* and the face flushed, and the head hot, then cold water, or even ice bags, may be applied to the head, and the following may be given internally:

Bromide of potash, one ounce.

Water or simple elixir, four ounces.

Mix. Dose: one teaspoonfull once an hour until the patient becomes quiet, and the condition for which it is given is removed.

This prescription may be used when there is much heat of the surface accompanied by restlessness, whether there is delirium or not. It is, also, excellent for *headache* when it is accompanied by the above conditions.

Where the surface of the patient is dusky, or livid, and the pupils are dilated, and the delirium is low and muttering, use the following:

Take five drops of tincture of belladonna once in three hours till the condition for which it is given is removed.

Should the surface become cold and bathed in perspiration, or cold, without the perspiration, give the following:

Dover powder, twenty grains.

Sulphate of quinine, nine grains.

Mix. Triturate, make three powders.

Give a powder once in four hours till the surface warms up and the patient rallies from this condition.

Blisters to the back of the neck, or to the shaven scalp, for low muttering delirium are, also, recommended by the highest authority, but the Author has never been compelled to use them.

When delirious, the patient must be carefully watched to keep him from leaving his bed, as any over exertion is liable to exhaust him beyond recovery.

Treat lung complications the same as recommended under Typhoid Fever.

Be careful to avoid the use of Opium where the pupil of the eye is almost closed. This is called the *pin hole* pupil, and this shows very great congestion of the brain, which Opium aggravates.

When the patient is restless and nervous, and the pupils of natural size or larger, and he cannot sleep, the following may be given to produce sleep when he is exhausted for the want of it:

Powdered camphor, 6 grains.

Dover powder, 15 grains.

Mix. Triturate, and make 3 powders.

Dose: give a powder, and repeat in two hours till the patient goes to sleep.

Where the patient is strong, young, and the heart is all right, instead of the opium and camphor the following may be given:

Hydrate of chloral, one ounce.

Simple elixir, or simple syrup, four ounces.

Mix.

Dose: give a teaspoonful in water, and repeat in half an hour, if necessary, to produce sleep. If more than this is required a physician should administer it. Don't give more than two doses. If the patient does not go to sleep you have not read his condition aright. Different sized doses of chloral are required for different cases. Where the patient is very hot and restless a few doses of the emetic powder will cleanse his stomach and soften his surface, and relieve the tension of the nervous system so

that he can sleep. The applications of cold water, as heretofore recommended, are, also, very restful and tend to sleep.

Care must be used to see that the patient passes his urine in proper amount, as it is sometimes retained in the bladder till the bladder may inflame or burst. Sometimes it is necessary to use a catheter to draw off the urine from the bladder.

Strong coffee is a good stimulant in low, depressed conditions, during either this fever, or typhoid. For vomiting use a mustard draught over the stomach. If this does not stop it, pieces of ice may be swallowed. Sometimes where the patient is much exhausted a half pint of milk, or two ounces of beef essence, may be injected into the bowel. This may relieve where the vomit is caused by prostration and lack of nourishment. Where none of these will stop the vomit one eighth grain of sulphate of morphine may be injected hypodermically into the arm.

Where diarrhœa is sufficient to exhaust the patient, give the following:

Tincture catechu, 1 ounce.

Tincture of opium and camphor, 1 ounce.

Tincture of rhubarb, 1 ounce.

Mix. Give a teaspoonful after each operation till the diarrhœa is checked.

Glandular swellings are a complication which sometimes arise during the course of this disease. These should be painted once or twice a day with compound tincture of iodine. If the inflammation in them rises to an uncontrollable degree, they may then be poulticed and suppuration encouraged till they are ready to open. Then they must be opened by free incisions.

The patient's food must consist, during the fever, of liquid food, of which milk just as it comes from the cow, (unskimmed milk) is the best. Beef essence is, also, excellent. It may be made by putting lean beef steak into a hot frying pan and turning it over as soon as it is well seared on one side, and then sear it well on the other side. Then squeeze out the juice and give the patient a table-

spoonful of this once in three hours during the day time. When milk is used, give one-half of a glass once in two hours during the day time. Give one or two teaspoonfuls of the wine of pepsin after each dose, where it does not seem to agree with the patient.

The patient's room should not only be disinfected by sprinkling the floor three times a day with a pint or two of water in which is dissolved one drachm of carbolic acid to the pint of water, but the patient's bed clothing may, also, be sprinkled with this at the same time. The chamber vessel should, also, be disinfected with it, and the patient's stools should be disinfected with it and afterwards *buried*.

When the patient is able to leave his bed the room in which he has been confined, should be disinfected for half a day with the fumes of burning sulphur. If the paper on the wall is loose it should be torn off, and new paper put on. If there is no paper on the walls the room should be thoroughly whitewashed, or kalsomined. When the patient first leaves his bed he should receive a thorough hot bath, made strong with salt, so as to remove all germs of disease from his body. All bed clothes which have been used around him should be thoroughly boiled in strong soap-suds and washed, or be burned. Feathers must be renovated with steam, or burned. The patient, however, should not be allowed to lie on feathers during his illness.

RELAPSING FEVER.

Relapsing fever is an epidemic, contagious disease, characterized by a series of symptoms which are perfectly characteristic and different in several respects from all other fevers. It comes on suddenly with a chill, or sickness at the stomach, and vomiting. The fever rises in a very short time to a very high pitch, ranging from 102° to 104° Fahrenheit, and generally even higher—sometimes to 108°.

The blood during this disease contains an immense number of small spirillae. These are living germs, and are supposed to be the cause of this distressing fever.

Symptoms, Course, etc.—This disease is more apt to break out among the destitute, and the overcrowded, but

may by contagion be conveyed to neighborhoods in every way healthy.

It generally commences with a pronounced chill, with sickness and vomiting. There is generally a good deal of headache with pains through the back and limbs. The tongue soon becomes coated with a heavy white coat, while the edges are pink colored with a *triangular* pink colored space at the tip.

The pulse is very rapid, ranging from 110 to 150 beats per minute.

Headache is a very constant and very distressing symptom, and is very difficult to control.

Notwithstanding the high fever the patient is seldom delirious. This is one of the *distinct* differences between this fever and other fevers.

The bowels may be either constipated or loose. There is nearly always tenderness on pressure over the liver, the stomach, the spleen and the bowels.

The liver and spleen are always more or less enlarged, sometimes only slightly and sometimes very greatly enlarged.

Hemorrhage is liable to occur from the nose, or bowels.

Sometimes the patient vomits blood. Where much blood is vomited, it is almost invariably a fatal sign.

Jaundice is quite frequent during this disease, and if it is very marked is generally considered as a very grave symptom.

There is no characteristic eruption belonging to this disease. However, an eruption sometimes appears.

The fever usually lasts with great violence, for from five to seven days, when the fever generally ceases with copious sweating. However, instead of the sweating, we may have free bleeding at the nose, or hemorrhage from the bowels, or vomiting of blood, or diarrhœa. The sweating is, however the most common discharge by far at the crisis.

All fever symptoms now cease for about a week, as a rule, when all the symptoms with the fever return with the same violence, lasting from three to five days. A second.

third, or more attacks may recur, although the time between each attack may vary somewhat.

Between the relapses the patient may have a ravenous appetite, or the appetite may be almost wholly wanting.

The pulse during the intermissions may be natural or weak and irregular.

Frequently the patient feels quite well and the system pursues its ordinary regular course between the relapses till without warning the fever again rises with all of its former violence.

Each succeeding attack, as a rule, is shorter than the former one in favorable cases.

Sometimes there is no relapse whatever, the patient recovering after the first attack.

The disease generally lasts from 18 to 20 days where there is but a single relapse, but relapses may recur till the disease is lengthened out to 90 days. And even then the patient may get well.

The rate of mortality is only 5 or 6 per cent.

I failed to mention that albumen sometimes appears in the urine during the fever.

Pneumonia, either double or single, is sometimes a complication.

Patients sometimes recover even after gangrene of a portion of one or both lungs has taken place.

Bed sores are not so serious in this disease as in typhoid or typhus fevers.

Paralysis of some part of the body is sometimes met with after the fever.

Partial softening of the brain, with corresponding enfeeblement of the mind, follows some cases.

The spleen or liver sometimes bursts, and these cases are fatal.

Wakefulness is a very distressing symptom attending the course of this disease, and is often very difficult to control.

Vertigo is worse in this than any other form of fever.

The general debility of the patient is not so great in this as in typhoid and typhus fevers.

Nausea and vomiting are nearly always prominent symptoms, more so in children.

General collapse of the system is liable to occur during the crisis. This is more liable to occur at the first paroxysm of the relapse. Dyspepsia is liable to follow the disease.

The passage of blood from the kidneys is a very grave occurrence when happening during this fever.

Treatment.—There is no special specific treatment known that will certainly control this disease, or limit its cause. We are, therefore, left to treat it on general principles as directed under *fevers in general* in a former part of this work. Let the reader refer to that and follow carefully the principles there laid down.

In addition to the directions laid down under the head of *fevers in general*, the patient should take the following:

Pulverized sulphur.

Cream of tartar, of each one ounce.

Rub together thoroughly. Dose: take a heaping teaspoonful morning and evening. If it physics too much the patient must take less.

When the breath becomes foul, use Tr. baptisia and chlorate of potash, one drachm of each, to four ounces of water. Dose: one teaspoonful once in two hours.

After the fever subsides take the following tonic:

Sulphate quinine,

Extract gentian.

Valletts mass. of each 40 grains.

Ext. belladonna.

Ext. nux vomic, of each 3 grains

Mix. Triturate. Make twenty capsules.

Take a capsule once in five hours during the daytime.

The patient should also take a tablezpoonful of the wine of pepsin after each meal.

INTERMITTENT FEVER OR AGUE.

This fever is the direct result of a specific poison known as malaria. Malaria is now admitted to be a living germ which may be taken into the system either by the

lungs or the stomach. In the one case it is taken in by the air we breathe, and in the other by the liquids we drink, or the food we eat. The effect in either case is the same upon the system.

Symptoms, Course, etc.—In the forming stages the skin and whites of the eyes are apt to become yellow. The features look somewhat pinched, and the expression dull. The bowels may become costive, and the appetite sluggish. When the chill is near at hand, the head may ache, and the patient feel languid and stretchy. The surface gradually gets cold, the nails blue, and the patient is taken with rigors, and calls for blankets and other agents to keep him warm. The chill may last from a few minutes to one or more hours, according to the severity of the case. After the chill ceases the fever rises and the cold surface gets hot, and the patient becomes restless and suffers with great headache and pains through the back and limbs.

The fever may run up to 106° Fahrenheit. High fever after a chill is generally favorable. The fever may last from three to eight hours.

When the fever begins to go down the patient begins to perspire. This perspiration is often quite profuse. In a few hours the patient is able to be up and about again, as a rule, till the next paroxysm, or chill.

There are four varieties of intermittents. In one the chill occurs twice a day; in another once a day; in another once in two days, and in another once in four days. They are called double *quotidian*, *quotidian*, *tertian* and *quartan* respectively. As the treatment is practically the same in all, we will not give any separate description of the separate varieties.

The quotidian is the mildest form, the tertian next in gravity and the quartan, most serious of all.

Treatment.—When the cold stage with chills comes on, the patient should either have a hot air bath or be plunged into a bathtub filled with water as hot as can be borne, or where these cannot be obtained, he should then be placed in bed with hot bottles, jugs of hot water, or hot bricks placed about him, with an abundance of covers over him in a

warm room. Hot ginger tea with a tablespoonful of whisky at each drink may be given him once in twenty minutes till the chill is over. Then remove the hot applications and any excess of bed clothes and give him the following:

Mother tincture of aconite, 2 drops

Cold water one-half a glass, mix.

Dose: take a teaspoonful once an hour till the fever goes down.

Cold water may be used as directed for fevers in general while the fever lasts. When the fever goes down attention must be paid to three things, viz.: to tonics and to the liver and the skin.

The skin should be thoroughly bathed in very hot water with castile soap, and afterwards thoroughly rubbed with a rough towel.

For the liver I prefer a large dose of calomel, with podophyllin, as follows:

Calomel, 8 grains.

Pulverized rhubarb, 6 grains.

Bicarbonate of soda, 10 grains.

Podophyllin, 2 grains.

Mix, and take at a dose in cold water.

After eight hours if the patient has not physicked *freely*, then he should take three ounces of castor oil. This will physic off the calomel and keep it from salivating the patient. The patient should not eat till the physic has worked off. He must be especially careful not to take anything which contains salt; or which is sour, as it would be very dangerous to life while he has so much calomel in his system.

If the patient objects to taking calomel he may take from two to three compound cathartic pills, (improved.)

After the physic the patient may take the following tonic:

Sulphate of quinine, 1 drachm.

Vallett's mass, 2 scruples.

Extract of gentian, 2 scruples.

Extract of belladonna, 3 grains.

Extract of nux vomica, 5 grains.

Piperin, 10 grains.

Mix triturate. Make 20 capsules.

Take a capsule once in 5 hours till four are taken daily.

The above will cure ague. We will not stop to philosophise over aggravated symptoms.

Should it be necessary the physic may be repeated once in two days till the attack is broken up. If the tonic should not be sufficient to prevent a return of the chill, 3 grains of Dover powder may be taken with each capsule.

Where the urine is high colored use the following:

Acetate of potash, 1 ounce.

Simple elixir, 4 ounces.

Mix, take a teaspoonful half way between the doses of the capsules.

Where the stomach is sick it is well to give a mild emetic to cleanse it at the commencement of the treatment.

REMITTENT FEVER.

This is a malarial fever which runs a variable course of from one to three weeks in duration according to the severity of the case.

Symptoms, Course, etc.—This disease in its first inception is about the same as intermittent fever. In fact, intermittent fever often changes to remittent, and *vice versa*. The commencing chill of this fever is the same as in intermittent, only as a rule it is shorter. After the chill the fever soon rises to a high pitch—from 103° to 106° Fahrenheit. The fever is lower in the morning, and higher in the evening.

The patient suffers with great headache, general malaise, loss of appetite, constipation of the bowels, and pains through the body, or limbs. The skin and whites of the eyes become yellow. The tongue may at first be coated white. It then turns yellowish, and in severe cases it becomes brown, and dry, and cracked. The urine is generally scanty and high colored. The patient may suffer with delirium when the fever is high, but the natural expression of the face is not so radically changed as it is in typhus and the lower grades of fever.

The pulse is full and bounding and generally runs from 110 to 130 beats a minute.

Thirst may be considerable, but is not so marked as in typhus and relapsing fevers.

Treatment.—After the chill, which may be treated by warm applications, etc., the same as in intermittent fever, if necessary. When the fever rises an emetic may be given with excellent advantage. Use the emetic powder given under the head of *fevers in general*. Also use cold water applications and fever drops as there recommended. Give a seidlitz powder after the emetic, once an hour, till the bowels are thoroughly cleaned out. After the emetic the patient may be put on the following powder:

Sulphate quinine, 2 scruples.

Pulverized opium, 5 grains.

Bitartrate potash, 50 grains.

Ipecac pulverized, 10 grains.

Mix. Triturate. Make ten capsules.

Take a capsule once in three hours during the daytime.

If the tongue becomes brown use the following:

Hydrochloric acid, dilute, 3 drachms.

Cold water one half pint.

Mix, take a tablespoonful once in two hours till the brown color leaves the tongue.

Use the applications of water as recommended under the head of *fevers in general*.

Keep up the fever drops while the fever lasts.

Use a light emetic every day if the stomach is foul.

Move the bowels every day with seidlitz powders.

Feed the patient on milk or beef essence as directed under the head of *fevers in general* until the fever goes down.

Sponge the patient off thoroughly every day in salty water of a temperature agreeable to the patient.

Where food does not agree with the patient's stomach give two teaspoonfuls elixir of pepsin after nourishment is taken. Continue the use of the fever drops and tonics while the fever lasts.

After the fever has subsided, give the patient the following: Take elixir of iron quinia and strychnia, 2 ounces,

take a teaspoonful four times a day till the patient gets strong.

PERNICIOUS FEVER.

This is a disease which only occurs in localities where malaria is intense, such as low, marshy districts, where the vegetation is decaying and accompanied, as a rule by hot, dry weather.

While the cause is the same as for intermittent and remittent fever, it exists in the system in a far more intense degree.

The beginning of the attack, in all cases which I have witnessed, exactly resemble intermittents, or mild attacks of remittent fever. The fever is light from the first, and may so far cease that the surface will become cool. The surface is generally moist. The patient feels quite comfortable, but is restless, and sighing respiration is frequent. The pupil of the eye is large. The bowels are easily moved. One peculiar symptom which has attended all the cases which I have seen, is an occasional vomiting of a *dark green* material. The pulse is soft and slightly compressible. The patient's face has an anxious expression and yet he is not ordinarily concerned about his case. The chill is not accompanied by the pronounced rigors which accompany ordinary intermittents. The extremities gradually grow cold, and the coldness of the extremities gradually advances upward toward the body, and in fatal cases the whole body grows cold and the patient dies. I have never seen a case in which the delirium was pronounced.

Treatment.—As soon as the disease is recognized, the patient should be placed upon large doses of opium and quinine. The following prescription is reliable:

Sulphate of quinine, 1 drachm.

Dover powder, 1 drachm.

Piperin, 10 grains.

Mix. Triturate. Make 10 powders.

Dose, take a powder once in four hours during the day-time till five are taken in one day.

If the dover powder makes the patient too sleepy the

amount of dover powder should be lessened to 3 or 4 grains to the dose, but the quinine should be given in large doses till all signs of a return of chills have passed away. The patient should be thoroughly physicked with calomel.

Calomel, 10 grains.

Podophyllin, 2 grains.

Pulverized rhubarb, 6 grains.

Bicarbonate of soda, 10 grains.

Mix. Take at a dose.

In eight hours take three ounces of castor oil to work off the calomel. The bowels may be kept regular after this with seidlitz powders.

The patient should not eat while the calomel is in him.

Where the surface is bathed in a cool perspiration, and where the patient shows signs of nervous prostration, an ounce of the best whisky should be given once in two hours in addition to the other tonics.

The surface should, also, be sponged off with pure alcohol once in two hours.

The patient should have a table spoonful of strong beef essence once in two hours during the daytime. No fever drops are required during this fever as the vital spark of life hangs upon a very slender thread, and the system cannot survive depressing agencies. The whole aim of the treatment is to stimulate, to depurate, and to strengthen.

Whenever this disease is recognized a physician should be at once called in. If I can make a suggestion in this little work which will be of aid to your physician, I shall feel doubly repaid for my labor. Let the reader remember one thing, viz.: That the patient's life depends upon the judicious use of quinine, *opium*, alcoholic spirits, and liver remedies.

YELLOW FEVER.

This is a disease confined mostly to southern climates, and yet its contagious principle may be carried in clothing, which has been exposed, or other material which has come in contact with the patient, to northern latitudes.

It is a very contagious disease. There is but one paroxysm of fever.

The first two days of the disease are generally the most fatal. No age is exempt from it.

One attack generally furnishes immunity from subsequent attacks.

It is evidently caused by a specific germ which as yet has not been discovered. The author, however, is disposed to regard the cause as being in some respects similar to malaria.

Warm, damp weather is favorable to the spread of this terrible epidemic. A freezing temperature soon checks its further progress.

Exhaustion from fright, intemperance, or any cause increase the liability to an attack.

Symptoms, Course, etc.—Sensations of chilliness with pains in the head and back usher in the disease. Its onset is very sudden.

The patient may be taken without any warning whatever.

The temperature may rise from 102° to 105° Fahrenheit within a few hours. Quite often the temperature of the body is not much increased. Sometimes a fatal collapse sets in from the first, in which case the patient remains colder than natural till death ensues.

The pulse is always low in proportion to the temperature. It may not in severe cases rise to much over 100 beats a minute. One striking peculiarity of this disease is that the pulse, as a rule, begins to *decline before* the fever reaches its highest point.

As the fever is advancing the skin becomes yellow, and the eyes injected and glistening. Hemorrhages from all mucus surfaces are a common occurrence. This is owing to the fact that the poison, which floats in the blood, so far breaks it down as to in a great measure destroy its plasticity or constructive properties; thus allowing a partial decay of the fluids and solids of the body, destroying the integrity of the natural channels of the circulation, and at the same time becoming more liquid itself, it exudes through mucus surfaces.

The stomach, as a rule, is exceedingly irritable, being scarcely able to retain either food or medicine.

The bowels are easily moved sometimes suffering from diarrhœa. The patient is apt to suffer from severe pains in the head, body and extremities. The urine, after the first twenty-four hours, is lessened in amount and specific gravity, and is often charged with albumen. It is often entirely suppressed in fatal cases.

Delirium is common. Convulsions sometimes occur in an attack.

Perspiration is a common attendant of the fever. From seven to ten per cent. of the patients die under the best treatment known.

Treatment.—Yellow fever is self limited, and all attempts to cut it short, so far as my knowledge goes, have failed. To commence on, a mild emetic may be given, using warm water and the emetic powder under fevers in general. This is merely to cleanse the stomach. Alcoholic spirits, quinine, opium, and proper food, and the proper uses of water, are the main reliances in this disease.

To control excess of fever, use fever drops and applications of cold water, the same as recommended under fever in general.

Permit me to suggest, however, that where the patient's stomach will admit of it, that I advise the early use of large doses of quinine and some form of alcoholic spirits. Not enough spirits should be given to produce intoxication, but the system should be kept saturated with it up to the point of intoxication. Where the spirits and quinine cannot be borne by the stomach, they may often be administered by the bowel with happy results. Whether the medicine be used by enema or otherwise, I would recommend in ordinary cases the following doses to be given:

Quinine, 10 grains.

Camphorated dover powder, 6 grains.

Mix. Take at a dose and repeat three times a day.

In some cases the amount of quinine may be doubled, and the dover powder may be given once in four hours. The patient may take an ounce or two of whiskey, or two or three

ounces of wine, once in four hours. The patient should not be denied alcoholic drinks. Let him partake of them freely. Alcohol is not only a powerful stimulant, but it floats through the blood unchanged and is very destructive to living germs when it comes in contact with them in the blood.

Where the patient can stand to use it, I prefer good whiskey as the stimulant. If his stomach will endure it, he may be given half a glass of sweet milk with each drink of whiskey.

Where the bowels are inactive they may occasionally be moved with a Seidlitz powder, or a small dose of castor oil. Great care must be taken not to use enough physic to produce diarrhoea.

Where the surface is bathed in a cool perspiration, it should be sponged off once in two hours, with pure alcohol. Where the surface is too hot and dry, cold water applications may be used as heretofore recommended, and a table-spoonful of liquor ammonia acetatis may be given once in two hours.

Vomiting may be relieved by swallowing pellets of ice, or by mustard draughts, or cold compresses over the stomach. Sometimes the injection of milk or beef essence into the bowels is the best remedy for vomiting.

Chicken broth milk, or beef essence are the best forms of food. Barley water may be mixed with the chicken broth.

Food should be given in small amount once in two or three hours; but always in liquid forms. And it should only be given in a small quantity at a time, as the stomach is exceedingly irritable.

Hemorrhage is often difficult to control, and seems to be held in abeyance more by a *supportive* treatment, such as heretofore recommended than by such agents as ergot, gallic acid, etc. The patient's feet should be well bathed in hot water at the commencement of the treatment. He should not be raised up in bed for *anything*, during his sickness. Bed pans must be used for urinary and stooling purposes. If his clothes need changing, rip his shirt and take

it off him in this way, and rip the shirt that he is to put on so that it can be done without raising him up. Observe the same caution with regard to changing the bed clothes.

Should collapse set in, then the foregoing dose of quinine and dover powder may be given, and combine with it for *one dose only*, one third, and in extreme cases, one half grain of sulphate of morphine can be given.

Such large doses, however, should only be given by a physician.

The patient must be exceedingly cautious about diet and exercise for two or three weeks after getting up.

In the foregoing remarks the Author has rather aimed to give wholesome suggestions as to the *line* of treatment to be pursued rather than a complete course of treatment for any given case of yellow fever.

For directions as to how to disenfect the sick chamber, I refer the reader to the article on typhus fever.

A physician should be at once summoned as soon as the slightest symptoms of an attack show themselves.

SCARLET FEVER.

Scarlet fever is a disease arising from a specific poison which produces a chain of symptoms which are perfectly characteristic and different from any other known disease. The poison varies in its effects upon the system and receives different names according to its intensity or the parts which it most prominently affects. The different forms are called scarlatina simplex or the simple form; scarlatina anginosa, or those in which the throat symptom predominate; or scarlatina maligna, or that form of the disease which exhibits signs of the greatest depression from the start, and in which the blood poison is the most intense. The danger is the same in all forms (only varying in *degrees*), viz., *blood poison*. The *type* of scarlet fever varies in different epidemics from mild to malignant forms, and the type may vary during the same epidemic in the same family, one case being of the mild form and another being very malignant or fatal.

Scarlet fever is an epidemic and a very contagious dis-

ease. It is next to small-pox, the most contagious of all the eruptive fevers, but the area of its contagiousness is small, only being a few feet from the patient or from infected articles. The contagious area of whooping cough and measles is much larger. There is a great difference in different subjects as to the degree of susceptibility to the contagious influence of scarlet fever—many escaping, while others become infected. This last remark is probably true of all contagious diseases. This is a disease from which persons of no age are exempt. One attack *as a rule*, furnishes immunity from subsequent attacks, but this is not always true. As many as three attacks have been known in one person; too much care cannot be exercised, therefore, about coming in contact with persons suffering from the disease, even by those who have passed through one or more attacks.

The time which intervenes between exposure and an attack of the disease varies from an hour to six days or thereabouts. It is generally from two to four days.

Symptoms, Course, Etc.—Scarlet fever generally commences suddenly, without any or scarcely any premonitory symptoms. Children may have little or no chill before the fever. A chill is ordinarily the first symptom in the adult. The fever arises with variable intensity accompanied by headache, loss of appetite, and thirst. The pulse arises from 110 to 120 to 150 or even more a minute. Sometimes the pulse becomes so extremely rapid that it can scarcely be counted.

Delirium is common in this disease, from an early stage, and the gravity of any given case may be judged, in a great measure, from the intensity or the continuance of the delirium. In the graver forms of the disease the delirium becomes low and muttering, accompanied by great stupor, and duskeness of the surface. Vomiting generally occurs at the beginning of the disease. In severe cases the vomiting is more protracted and severe than in mild cases. The vomiting may even be absent in mild cases. In very severe cases the vomiting may be so severe that no medicine or food can be retained, and the patient dies.

The bowels vary from slight constipation to persistent diarrhœa in the graver forms of the disease. Protracted diarrhœa may be regarded as an unfavorable symptom, inasmuch as it diverts the termination of the eruption from the surface. Spasms sometimes occur at the commencement of the disease, but when they occur at a late stage of the disease, they are more alarming in their significance as they indicate ureamic poison. The patient indicates a great degree of nervousness sometimes amounting to spasms. But this generally passes off in a great degree when the eruption is fully and properly established.

The tongue is generally white with inflamed and red papillae projecting through it. This is known as the strawberry tongue. Sometimes the tongue sheds its coat and another coat of the same kind appears. In grave cases portions of the tongue may clean off while others retain the characteristic coat, giving rise to what is known as the patchy tongue.

The skin in this disease is very hot and dry. In from six to eighteen hours the rash begins to appear in the form of a red efflorescence about the ears, neck and shoulders. The rash is not perceptibly raised above the surface. It is diffuse in character and finally presents a deep scarlet appearance continuous and diffuse, over all the eruptive area which may extend over the body and the extremities.

The rash or redness disappears upon pressure, but returns more or less slowly, according to the gravity of the case, after pressure is removed.

In the graver forms of the disease the color returns slowly. In fatal cases the rash is apt to assume a livid hue. This is owing to the great sluggishness of the capillary circulation, indicating advancing stasis of the blood.

As a rule the throat becomes early affected in this disease. It becomes red and swollen inside and swollen outside. The glands of the mouth also become red and swollen. The glands at the angle of the jaw become much swollen and abscesses may occur.

An ichorous discharge generally comes from the nose after the disease is well established. The urine at first is

scanty and high colored. In the later stages of the disease it is apt to contain albumen. An albuminous condition of the urine accompanied by general dropsy, is one of the complications that must be constantly guarded against in the later stages of the disease.

It is not uncommon for abscesses to form in the ears and the discharge from them is liable to continue for an indefinite period, and it is claimed that these discharges are sometimes contagious.

The lips become dry and cracked in the advanced stages.

The appetite does not return, generally, until near the close of the second week.

Desquamation, or scaling of the skin, begins about the sixth day and may last until the third or fourth week, but generally only lasts until the tenth or twelfth day.

The disease lasts from one to three weeks, according to the severity of the case.

Sometimes the disease is so slight as to be difficult to recognize.

Prognosis.—The disease under proper treatment generally terminates favorably. However, in the severe throat forms and in malignant scarlatina, there is a heavy percentage of mortality, and many also die of the kidney troubles which follow the disease.

Treatment.—Treat the excess of temperature upon the same plan as recommended for *fevers in general*. Cloths may be wrung out of ice water and applied to the throat where there is inflammation of the throat. These cloths must be changed as often as they get warm. This must be kept up as long as the body temperature is high and the throat continues to inflame.

At the commencement of the disease it is well to give the emetic powder mentioned under the head of *general formula* in two grain doses, in warm water once in ten minutes until the stomach is thoroughly cleansed and the system somewhat relaxed. This should be repeated every day for four or five days.

When the fever runs very high give two grain doses of the emetic powder once an hour to relax the system. When

the patient vomits, always have him drink freely of warm water afterwards, to prevent retching of the stomach and to still further relax the system.

From the commencement of the fever it is well to give the following mixture, keeping it up while the fever runs high :

Chlorate of potash, 1 drachm.

Tr. chloride of iron, 2 drachms.

Water, 4 ounces.

Mix. Take a teaspoonful once in two hours.

When the breath becomes foul put into the above mixture one-half drachm of boracic acid.

When there is delirium, accompanied by a hot head and a flushed face, give ten grains of bromide of potash once an hour. Ice bags may be applied to the head also, until the heat and delirium subside.

Remember that no cold application must be used which makes the patient chilly, after the first shock of the cold application has passed off. The body may be occasionally sponged off in cool water when the temperature is high. Alcoholic spirits may be given in any form as much as desired. Good wine, brandy or whisky are preferable. The stronger drinks may be given in sweet milk.

The bowels should be kept regular with seidlitz powders. Keep the room warm. From 72 to 75 degrees Fahrenheit is right. Disinfect the patient's bedding and the room in which he lies, with the following solution:

Sulphate of zinc, 3 ounces.

Carbolic acid, 1 ounce.

Water, 1 gallon.

Mix. Sprinkle the bed clothes, the floor and the walls with this, once in three hours. And it is well for all attendants of the sick to keep their clothes well sprinkled with this to avoid contagion.

No one must be allowed to come near the patient except the physician, the mother or parent, and the nurse.

When the disease is over the room must be fumigated for hours with burning sulphur. All the bed clothes, and all clothes of the patient should be soaked for three hours

in the foregoing solution and then thoroughly boiled. All straw bedding should be burned.

Always keep some of the above solution in the chamber vessel. Always burry the stools.

Feed the patient one ounce of beef essence once in four hours during the day time. Give him one teaspoonful of wine of pepsin after each dose.

The patient should be kept in the house in warm rooms for about four weeks, or until desquamation or the scaling off of the skin is complete.

Should the kidneys become affected and albumen appear in the urine, and dropsy of any part appear, the most urgent measures must be employed to re-establish the normal secretion of the kidneys, and until this can be done, the skin and bowels must be kept in an active condition.

A good hydragogue cathartic is the compound powder of jalap. It should be given in level doses until free discharges are secured from the bowels. It may be repeated as often as necessary.

Muriate of pilocarpin should be given to produce perspiration. One fifteenth of a grain may be given to an adult once in six hours. It may be necessary to keep this remedy up for one or two weeks. It may be given oftener if necessary to keep up a good sweat. It also exercises a remarkable effect upon the kidneys when they are secreting albumen.

A vapor or hot air bath should be given once or twice a day to produce free sweating.

When the ear discharges matter it should be thoroughly washed out, once in five hours, with the following:

Carbolic acid, $\frac{1}{2}$ drachm.

Sulphate of zinc, $\frac{1}{2}$ drachm.

Rain water, 4 ounces.

Mix. Keep warm and wash the ear out once in five hours with a syringe. Powdered boracic acid is an excellent thing to put into the ear after each washing.

When the patient is able to be up and about, watch his diet carefully and give him for a couple of weeks, the following:

Elixir phosphate iron quinia and strychnia, 4 ounces.

Dose: One teaspoonful four times a day, five hours apart.

Be cautious not to use any heavy diet, nor expose the patient to the cold for four weeks after he gets up. It is always best to employ a physician in this disease. Remember one thing, viz: always watch the urine for one month after the patient is up and around. If albumen appears treat as heretofore directed. During desquamation or scaling, it is well to oil the surface of the body, once or twice a day, with sweet oil. Put about half a drachm of carbolic acid to four ounces of the oil, and rub all over the body.

MEASLES.

Measles is an eruptive fever.

It is contagious to a high degree.

It ordinarily occupies from its beginning to the end of desquamation, about two weeks. It is liable to be followed by ophthalmia, pleurisy, pneumonia, bronchitis, diarrhœa or dysentery. When properly treated it rarely ends fatally.

Symptoms, Course, etc.—The disease generally commences with a chill, followed by a fever, of greater or less severity, generally rising on the first day from 102° to 104° fahrenheit. The eyes suffuse with tears, the nose runs and a harsh, irritable cough are common symptoms. The patient to commence with, generally has the symptoms of a "bad cold" accompanied by fever of greater or less severity. The eruption generally appears about the third, fourth or fifth day accompanied by an aggravation of all of the symptoms. It generally commences about the face and neck and sometimes red spots can be seen in the mucus membranes of the mouth and throat first.

The eruption generally lasts about four days. The fever is highest when the eruption is at its full and generally subsides with the eruption. The eruption is raised above the surface so that it can be felt and is sometimes distinct and sometimes confluent. No matter forms in the eruption as in small-pox.

About fourteen days ordinarily elapse between exposure and the appearance of the eruption.

Prognosis.—Patients nearly all recover when properly cared for during this disease.

Treatment.—A light emetic, of the emetic powder, mentioned under general formula, should be given to commence on when the fever first appears.

The following fever drops may be given after the emetic:

Tincture belladonna, 10 drops.

Mother tincture aconite, 1 drop.

Water, 4 ounces.

Dose: Give a teaspoonful once an hour when the fever is high and once in two or three hours when the fever is slight. Keep the temperature of the room constantly up to 75° Fahrenheit until the eruption disappears. Give cold water and lemonade to drink in preference to hot teas. If the patient becomes chilly at any time and the surface cool, give a hot whisky toddy with plenty of cayenne pepper in it. Have a good fire in the room if the weather is cool and ventilate by raising the window at the bottom and by lowering at the top. The surface may be sponged once or twice a day in warm water, being careful not to chill the patient. Wine may be given to support the patient after the crisis has passed.

Animal broths, beef essence and milk, should form the main food while the patient has fever. These should be given every three hours. Give a light emetic if the patient's stomach is qualmish or sick, so that he cannot take food, or if he has been overfed an emetic may be given to empty the stomach. The room, clothes, bedding, etc., may be disinfected the same as was recommended for scarlet fever. Seidlitz powders may be used to move the bowels if needed.

Great caution must be used to not allow the patient to go out of doors, or to become chilled, soon after he gets out of bed.

For the cough a little syrup of ipecac may be used.

SMALL POX.

This is an infectious, contagious disease, accompanied by a high grade of fever, which lasts for some days and then abates during the eruption and again arises as the eruption dries in.

From ten to fifteen days elapse between exposure and being taken down with the disease.

Prognosis.—This is a very fatal malady. From fifteen to fifty per cent. generally die during an epidemic of this disease. Before vaccination was discovered nearly half the deaths in England were caused by small pox. Vaccination generally either prevents the disease or causes it to be so mild that it is seldom fatal. Confluent small pox is much more fatal than where the eruption is distinct.

Symptoms, Course, etc.:—The earliest symptoms are headache, pain in the back and sickness at the stomach. The violence of these initial symptoms is generally an index to the severity of the following attack. After these symptoms last for a longer or shorter period of time, the patient is taken with a chill, of greater or less severity, which may last but a short time and in others it may last for hours. The severity of the chill is also an index to the gravity of the case. After the chill the fever rises to from 103 to 110 deg. Fahrenheit.

Children are often taken with convulsions and delirium from the start. Delirium is apt to be present during the course of the disease in adults. It becomes very violent often in severe cases.

The eruption appears generally in three days, but in some cases does not appear until the fourth, fifth or sixth day. The rash is quite similar to measles, at first. It commences about the head and face, appearing later on the trunk. About the third day the pox begins to fill with a clear serum at its apex. The development proceeds until by the sixth day of the eruption a round pustule about the size of a pea and filled with a white pus is fully formed. The fever goes nearly down when the rash first appears, but again rises, with all of its former violence, when pus is formed in the pox.

The pox begins to dry up about the 13th or 14th day of the disease. The fever now begins to go down again and gradually gives away entirely. Desquamation is not completed for one or two weeks from the time it begins.

The pox not only breaks out upon the surface, but upon every mucus membrane of the body and in the eyes. Where the pox run together it is called confluent small-pox. Where the attack is modified by previous vaccination it is termed varioloid.

In some malignant cases of small-pox, where hemorrhagic spots form under the skin, and where the eruption never fully develops, the disease is mistaken for measles, and is often called "black measles." In severe cases, small pox is a most loathsome disease. The eruption covers the whole body, and the eruption in the mouth and throat may be terrible in degree and offensiveness. The whole body becomes swollen, the eyes swell shut and are only opened by using force, and the stench arising from the patient is almost unbearable. When the pox begins to dry up, the itching is almost unendurable. Great difficulty is often found in diagnosing the nature of this disease in isolated cases until the eruption forms. Great care should be used to early ascertain the nature of the complaint, so as to not only give the patient proper treatment; but to avoid exposing others. The best physician, however, is liable to mistake the disease until the development of the eruption.

Treatment.—When the first symptom of the disease makes its appearance a physician should be at once called. I will suggest a line of treatment which your physician will possibly not be willing to use. I suggest it simply because I personally know of its great excellence. It is not a treatment which is either known or endorsed by the great "Regular" school of medicine, for whom I have a great respect. I depart from their teachings in this disease for two reasons: First, because they admit that they know of no treatment which will even modify the severity of the disease; and, secondly, because I have known of many cases being greatly benefitted and carried safely through by the treatment here given. Every word here given shall be in

the strictest sincerity for the benefit of the poor sufferers from this dread disease.

Some things advised under the head of treatment, however, are agreed upon by all.

When the fever first begins, the patient should have an emetic of the following:

Lobelia seed pulverized, 1 ounce.

Capsicum, 20 grains.

Ipecac, 1 drachm.

Mix, put a heaping teaspoonful into one-half glass of blood-warm water, dose: give two teaspoonfuls once in ten minutes until the patient vomits and sweats freely. Between the vomiting periods have the patient drink freely of warm water. After the vomiting have the patient drink freely once an hour of tea made from the *composition powder* mentioned under the head of *general formula*.

When the patient's fever begins to rise give him two grains of the emetic powder, mentioned under the head of general formula, once or twice an hour. Bathe the skin with hot water and castile soap at least once a day. If the above does not control the fever, repeat the emetic until the fever goes down. A teaspoonful of the first emetic mentioned may be given once an hour if the fever rises to any great extent. Push this when the fever comes up until the emetic cools the fever. A vapor or hot air bath may be given once a day for the first three or four days to promote sweating. After each vomiting period the patient may be given from one-half to one glass of sweet milk or half a cup of some kind of animal broth. The emetic may be given freely whenever fever rises during the disease. The patient's body may be sponged off once a day during the eruption and all through the disease. The water should always be warm enough to be comfortable to the patient.

Sweet milk or animal broth should be given once in three hours during the daytime through the eruptive and desquamative stages. A half glass of sweet milk or one ounce of beef tea made strong may be given.

Give the patient all the lemonade he wants and make it as strong as he wants it. Enough sugar may be used in

it to make it agreeable to the patient. A tablespoonful of claret wine may be given with each drink of lemonade if the patient desires it.

After each bath during the eruptive and desquamative stages the patient may be annointed all over with the following:

Carbolic acid, 1 drachm.

Cosmoline, 10 ounces.

Mix thoroughly and rub all over the patient. The best castile soap and warm water should be used to wash this off at each bath. All sunlight should be excluded from the patient's room until the pustules dry up, as sunlight is supposed to be one of the main causes of pitting, as parts which remain covered do not pit as do those which are exposed to the light. To assist in keeping the patient cool, cloths may be wrung out of water of a temperature suitable to the patient's feelings and laid over any or all parts of the body. A wet sheet wrapped about the patient is often very beneficial. Care must be used not to produce a parboiled appearance of the skin by too continuous an application of water bandages. The bowels may be kept regular by giving, when necessary, a teaspoonful of powdered leptandra root in a little warm water. This may be repeated once every day or two if necessary. Oiled silk may be spread over the pustules after they are annointed with cosmoline where it affords relief. I am of the opinion, however, that wet cloths are much preferable to oiled silk.

Where abscesses are formed by the confluence of the eruption, they should be carefully evacuated. Disinfectants may be employed in the same way as recommended in scarlet and typhus fever, and the same care about isolating the sick. •

As a tonic I recommend the following preparation:

Tincture of ginger, $1\frac{1}{2}$ drachms.

Sulphate of quinine, 1 drachm.

Alcohol, 2 ounces,

Simple syrup, 2 ounces.

Mix. Dose: One teaspoonful once in three hours during the day time. This tonic should be given from the

time the eruption dries up until desquamation is complete. Doses of this tonic may be given right along between doses of the emetic mentioned in the first part of this subject. I want the emetic mixture to be given right along as directed heretofore, as long as the fever lasts. Those who scoff at this may take the consequences. Cream of tartar may be taken freely during small-pox with advantage. A level teaspoonful may be mixed in a glass of water and the patient be allowed to drink this much once or twice a day, but care must be taken not to use much of this when the bowels are too loose. If diarrhœa attacks the patient, the remedies advised under the head of diarrhœa may be used.

HIVES, OR NETTLE RASH.

This disease is characterized by lumps or elevated patches of skin which itch or smart sometimes intensely. The eruption looks like welts arising from a bruise.

As a rule a single attack only lasts for a few hours. A sudden recession of the hives sometimes causes distressing symptoms about the heart, such as pain or smothering sensations accompanied by pain at the heart.

Treatment.—The digestive organs should be looked after and the bowels should be regulated. For the bowels give a seidlitz powder once an hour until the bowels move. Also give the following:

Tincture of belladonna, 20 drops.

Water, 4 ounces.

Mix. Give a teaspoonful once an hour until the symptoms are relieved. Where the case is distressing give the patient a teaspoonful of paregoric once or twice an hour for two or three hours in addition to the above.

The surface may be bathed in strong salt water also. Keep the patient in bed and warm, as cold is liable to cause the hives to strike in. Keep the room warm.

In severe cases it is well to give an emetic, of the emetic powder, given under the head of general formula.

MUMPS.

Mumps is a disease which mainly affects the Parotid glands. These lie immediately in front of the middle of the ear. They become swollen, inflamed and tender. Sometimes the swelling is slight, at others it is very large, filling out the angle between the jaw and the neck. It may occur on one or both sides of the face at a time. When both sides are affected, one side is generally attacked from twenty-four to forty-eight hours before the other. The patient may only suffer from mumps on one side the first time and years afterward have it on the other side.

Sometimes it only affects the submaxillary glands. These are situated under the jaw. Such cases are rare. Sometimes it affects the breasts, ovaries and labia pudendi of women and testicles of men. But when it does, it occurs at a late stage in the disease, and when it affects these organs lower down in the body than the original swelling, it is not to be regarded as a metastasis or "settling down" of the disease, as it is popularly called; but rather an extension of the disease to these parts.

Sometimes the testicles of the male shrivel up after an attack, sometimes varicocele or orchitis occur.

From seven to fourteen days elapse between exposure to the contagion and an attack.

One attack, where both parotid glands are affected, generally furnishes immunity from subsequent attacks.

The disease generally lasts a week or ten days. Nearly, if not all, cases recover. I have never known of a fatal case.

Treatment.—Give seidlitz powders, or sprudel salts, every day if necessary to keep the bowels open. Also give the following while there is soreness and inflammation:

Mother tincture aconite, 1 drop.

Tincture belladonna, 5 drops.

Water, 4 ounces.

Mix. Dose: one teaspoonful once an hour during the daytime. If the above does not control the soreness and swelling, apply to the swollen glands cloths wrung out of

water as hot as can be borne. Keep this up, removing one cloth as soon as it cools and supply its place with a hot one. This may be kept up for half an hour, then rest for from one to three hours and repeat. Keep this up until inflammation and pains cease to distress the patient.

Feed the patient milk and beef essence, or beef juice, until he is over the acute symptoms of the disease. The beef essence may be thinned down to a tea if the patient prefers it. He may have all he wants.

The patient may have all the lemonade or water that he wants. Sweeten the lemonade to suit his taste.

Keep the room warm, from 70° to 75° Fahrenheit. His surface may be sponged off with warm water and castile soap every day. After the fever is over, give the patient the following tonic until he gets strong:

Phosphate, iron, quinia and stychnia, 4 ounces.

Dose: a teaspoonful four times a day.

ERYSIPELAS.

Erysipelas is an acute, infectious and somewhat contagious disease. Some epidemics are much more contagious than others. The particular type of any epidemic of this disease is faithfully transmitted by contagion.

Symptoms, Course, etc.--The disease is generally ushered in by a chill, of greater or less severity, sometimes so slight as to be scarcely noticed: sometimes a violent chill precedes an attack. Fever more or less pronounced, generally follows the chill. In from a few hours to a day, redness and inflammation is set up at some point, of greater or less extent, upon the surface in some part of the body or extremities. The skin looks red, tense and glistening and is painful, sore and apt to itch. The inflamed surface is generally raised above the surrounding surface. Sometimes blebs or blisters form and sometimes where the disease is severe, the color of the inflammation becomes very purple--almost black. In these cases sloughing or local gangrene may take place. The tendency of erysipelas is to work toward the head. Hence it is bad for it to commence in the lower extremities as it is

then liable to go upward and cover the whole body. Sometimes the swelling is enormous. When the face is affected, the eyes swell shut, and the face presents a hideous appearance. When the case terminates favorably, the swelling begins to abate between the third and the sixth days, and gradually subsides. During defervescence desquamation of scales from the formerly inflamed parts occurs. One attack of erysipelas often predisposes to others.

Treatment.—The same course of disinfectants should be used in this disease as in typhus fever, scarlet fever, small pox, etc.

The temperature of the room should be kept at about 70° Fahrenheit. It should be kept well ventilated. The patient may be bathed daily with warm water and castile soap.

When the patient is first taken give an emetic, of the emetic powder, mentioned under the head of *general formula*. Let the emetic be quite thorough. Repeat it every day if the patient's stomach is sick, or if the tongue gets very foul, or if the fever runs high. Keep the stomach cleansed every day.

After the emetic, give seidlitz powders, to move the bowels. Give one an hour, until the bowels are thoroughly moved.

To control fever give the following :

Mother tincture of aconite, 1 drop.

Tincture belladonna, 10 drops.

Water, 4 ounces.

Mix. Give the patient a teaspoonful once an hour when he is awake.

Also give the following:

Tincture chloride of iron, 1½ ounce.

Simple syrup, 2½ ounces.

Mix. Give the patient a teaspoonful once in four hours in water.

As a local application to unbroken surfaces use the following:

Carbolic acid, 3 drachms.

Hot water, 1 quart.

Mix. Wring cloths out of this as hot as can be borne, and lay them over the inflamed surface. They should be frequently renewed while the inflammation is high. Should the carbolic acid make the parts feel too numb, it should be left out. Two grain capsules of sulphate of quinine should be given half way between the doses of iron, right along during the disease. The seidlitz powders may be repeated every day if the bowels get bound up.

Should abscesses form they must be opened and cleansed, and their interior should be washed out once in three or four hours with the following:

Carbolic acid, 1 drachm.
Tr. myrrh, 8 drachms.
Fluid hydrastis, 4 ounces.
Rain water, 11 ounces.

Mix. Wash out the abscess with this, and afterward lay a cloth wet with this over the evacuated abscess. Seven or eight drachms of tincture of opium may be added to the above where the parts are painful.

During the attack the patient should be fed on animal broths and milk. Beef essence is excellent. This may be fed to the patient about one ounce at a time, once in three hours. The patient may be allowed whiskey or wine in reasonable amounts.

If necessary to control the fever, cloths wrung out of cold water may be used as directed under *fevers in general*.

When the patient begins to be decidedly convalescent his bill of fare may be cautiously increased. Elixir or wine of pepsin should be given after each meal for some time.

The iron should be given until the inflammation has gone down, and the quinine may be given for four or five days afterward.

After the disease has vanished, the bedding must be thoroughly disinfected and also the room, as recommended under yellow fever, typhus, scarlet fevers, small-pox, etc.

VARICELLA, OR CHICKEN POX.

Chicken pox is a disease which is almost exclusively confined to infancy and childhood. It is characterized by an eruption of watery or sero purulent vesicles of about the size and shape of a split pea. Some of the vesicles, however, may be conical and smaller, and some are much larger, even as large as a small nut. Sometimes the eruption is thick over the body and the extremities, and sometimes only a few vesicles appear. The vesicles soon pit after their appearance and resemble the eruption of small pox closely. The symptoms attending the disease are always mild, but little fever occurring. Sometimes, and I may say quite often, the eruption is not preceded by any noticeable fever. The child is generally peevish and fretful for a few days. The disease may last from two days to two weeks. The disease has never, when uncomplicated, been known to be fatal. Sometimes the patient may have little or no perceptible fever, and at other times one or two degrees of fever may last two or three days. The pustules dry away and leave scabs, which soon peel off, sometimes leaving permanent scars or pits behind them. These are bad, when they are upon the eye, as vision in this way may be permanently affected.

Treatment.—No treatment is generally necessary, but when there is considerable of fever, the patient may take the following:

Mother tincture of aconite, 1 drop.

Tincture belladonna, 5 drops.

Water, one-half glass.

Mix. Take a teaspoonful once in one or two hours, according to the severity of the symptoms or until the fever goes down. Injections of warm soap suds or mild doses of castor oil may be used to keep the bowels open. The eruptions may be annointed with cosmoline in which there is four drops of carbolic acid to the ounce. Where the eruptions about the face are bad, the patient should also have the eruptions covered with oiled silk and be kept in a dark room to prevent pitting. The temperature of the room should be kept at about 70° Fahrenheit during the

eruption. This disease is contagious but not inoculable, at least so far as discovered.

DIPHTHERIA.

Diphtheria is an infectious, contagious disease. It may be retained for a long period in houses that have not been disinfected. It can be conveyed on utensils, clothing, etc, to long distances and for long periods of time. It is supposed to be caused by a living germ but the germ has not as yet been discovered.

It is a disease which is characterized by an intense degree of blood poison. One attack predisposes to another. Some individuals and families are less liable to the contagious influence of the disease than others.

It seems to attack the weak and the robust with equal facility; a strong constitution affording no immunity from its invasion.

Persons suffering from catarrh of the air passages are more liable on this account to contract the disease. Children are more liable to be stricken down with it than adults. Sex does not seem to exert any influence. Each sex contracts the disease with equal facility.

Where not properly treated the disease is very fatal.

Under the old-time practice about 90 per cent. of the patients taken with it died, but under modern treatment only about 10 per cent. die. Under the treatment given in this work the author has never seen a fatal result.

The period of incubation that is from exposure until the disease commences, ranges from 24 hours to two weeks.

Symptoms, Course, etc.—The first symptoms are headache, either slight or violent, with wandering pains through the back, limbs, and pains with stiffness of the muscles of the throat.

Pains in the ears are common.

There is, also, loss of appetite to a greater or less degree.

The patient begins to find difficulty in swallowing, especially liquids.

The disease is generally ushered in with chilly sensa-

tions, etc. Sometimes there is a decided chill. In severe cases vomiting or spasms, or both are observed.

The fever which follows the chill ranges from 101 in mild cases to 106 or 107 in violent cases. The fever as a rule is easily reduced with appropriate remedies. White patches of canker soon begin to form in the throat or in the mouth. The white patches are generally depressed and are adherent to the mucus membranes.

The throat and surrounding structures become swollen, red and inflamed, having a dark, angry red appearance.

The canker in severe cases may extend to *every mucus membrane of the body*.

Talking and swallowing gradually become more difficult. Where canker is formed in the nasal cavity it gives the voice a nasal twang as though the patient were talking through his nose. When the disease goes down the wind-pipe it causes hoarseness. When the lungs become involved the patient is affected with a hoarse, croupy cough, and more or less laborious respiration. Where the respiration becomes difficult the face may assume a more or less livid appearance. This is caused by a partial non-aeration of the blood. The discharges from the bowels become very offensive as the disease progresses. The breath is also liable to be very offensive. Paralysis of one or more nerves or sets of nerves is liable to follow the disease, and it is more liable to follow mild than severe cases; but the system generally overcomes the paralysis in from six to ten weeks.

An open wound when exposed to the diphtheretic contagion, is apt to become covered with canker in twenty-four hours.

Great sloughs drop out of the throat in severe cases.

Treatment.—Let me offer one suggestion at the outset of my remarks on treatment, viz: *that blood poison is the one great danger that must be met in this terrible disease*. If we are able to control this, all other symptoms will abate and the patient will recover. The blood poison in this disease is apt to become so intense as to break down the plastic power of the blood.

The first thing in the care of the patient is to see that

his room is clean, properly warmed, ventilated and disinfected.

The temperature of the room should be kept at about 70° fahrenheit. The room must be properly ventilated, but draughts of air must be avoided. The room should be disinfected as recommended for typhoid, typhus fever, small pox, etc.

Next, the patient must be carefully fed. Beef essence and milk are the best. He should have one ounce of beef essence once in three hours until five ounces are given daily. If milk be used give him a pint of milk once in three hours. I prefer the beef essence.

Where the system is at all depressed, wine, whisky, or brandy may be used freely. An ounce or two of brandy, or two or three ounces of wine, or one or two ounces of whisky, may be given once in three hours to adults. There is more danger of not giving enough than too much spirits. Where the diphtheretic poison is intense there is no danger of intoxicating the patient. Even children sometimes take large amounts of spirits in this disease without any discomfort. The patient must not drink sufficient however, to intoxicate him. Cream of tartar and *sulphur* should be given, each in one-half teaspoonful doses, four times a day, from the start of the disease until the canker leaves. It may be mixed in water or buttermilk.

The patient should not drink water for awhile after swallowing it, but allow the medicine to remain on his throat. The following mixture may be taken half way between the doses of sulphur:

Sulphate of quinine, 50 grains.

Tincture of belladonna, 50 drops.

Tincture of chloride of iron, 4 drachms.

Syrup of sugar, 3 ounces.

Mix. Take a teaspoonful in a swallow of cold water, once in four hours until five teaspoonfuls are taken daily.

Use the following gargle once in two hours while there is canker, and while the throat is much sore.

Bromochloralum, 1 ounce.

Listerine, 1 ounce.

Distilled or rain water, 6 ounces.

Tincture of aconite root, 1 drachm.

Mix. Gargle one or two teaspoonfuls at a time and spit it out.

The above may be used in the nose in the form of spray or as a wash to any cankered surface.

The following is also a good gargle:

Tincture of myrrh, 4 drachms.

Fluid hydrastics, 4 drachms.

Fluid extract of myrica cerifera, 8 drachms.

Fluid extract of wild indigo, 5 drachms.

Tincture aconite root, 2 drachms.

Chlorate of potash, 2 drachms.

Water, 5 ounces.

Mix. Gargle one or two teaspoonfuls once in two hours and spit out.

When the throat swells, outside applications are very beneficial. A towel wrung out of water as hot as can be borne and renewed as soon as it cools, is an excellent application. A teaspoonful of oil turpentine to each quart of the hot water from which the towel is wrung, makes the application much more powerful and should be used in all severe cases, care being used not to blister the throat outside.

The patient's bowels should be freely moved every day. For this purpose seidlitz powders are good. They will physic off the sulphur. Give a powder once an hour till the bowels move.

The patient should be sponged off once a day with castile soap and very warm water, being thoroughly rubbed afterward with a rough towel. Only a small portion of the surface should be washed before being wiped off, as this will avoid chilling the patient.

Should the fever get high, give the following drops:

Mother tincture aconite, 1 drop.

Fowler's solution of arsenic, 5 drops.

Water, one half glass.

Mix. Dose: a teaspoonful once an hour till the fever is sufficiently reduced. The fever is very easily reduced as a rule in diphtheria.

Hot foot baths, the patient the meanwhile drinking freely of hot composition tea, till free perspiration is produced, then putting the patient to bed and keeping him in a warm sweat, are very beneficial. Composition powder will be mentioned under the head of *general formula*.

Antiseptics, stimulants and tonics are the class of agents which must be pushed in this disease to the limit of the patient's endurance. A light emetic, occasionally, to cleanse the stomach, so that medicine, can act and food be absorbed, is of great importance. The emetic powder, mentioned under *general formula*, is probably the best. The line of treatment which I have pointed out, if used intelligently and appropriately, adapted to different temperaments and ages, will generally cure the patient. Of course the doses here mentioned are for adults. As soon as diphtheria is discovered you should at once seek the aid of your family physician, and he can assist you in applying the treatment here laid down. The patient should continue the use of the iron tonic herein mentioned, taking about three doses daily for a week after he is up and around.

WHOOPIING COUGH.

Whooping cough is an acute contagious disease which affects all ages and sexes, and generally occurs but once in the same individual.

This disease generally lasts from one to three months. The rate of mortality from simple, uncomplicated whooping cough is very small. The disease is supposed to be caused by a specific poison in the blood.

Symptoms, Course, etc.—The first symptoms of this disease, for all practical purposes, may be said to be the same as the symptoms of a bad cold. The patient sneezes, coughs, the eyes are watery and there is a running of mucus from the nose. The head aches and the patient may have a slight fever which only lasts for a short time. The cough soon takes on a paroxysmal character. The cough has a dry ringing, almost metallic sound. In from three days to two or three weeks the characteristic whoop which accom-

panies the cough makes its appearance. The paroxysms of coughing become so violent that the patient gets almost black in the face. When the patient comes out of the paroxysm he is pale and exhausted and is often inclined to sleep. All symptoms or nearly all symptoms of catarrh, pass off in a few weeks and the patient may enjoy his usual health between the paroxysms. The patient is apt to vomit during the paroxysm, and this sometimes becomes a very troublesome symptom, it being difficult, in some cases, for the patient to retain sufficient food on the stomach to support life, in which case the patient sometimes dies of exhaustion.

Treatment.—The patient should have a hot bath every day, or every other day, for the first week. He should remain in the bath until he breaks out into a free perspiration. As he comes out of the bath he should be dashed with cooler water and then have the surface rubbed until a warm glow overspreads the surface.

Internally, for a child five years old, I would advise the following:

Tincture belladonna, 8 drops.

Water, half a glass.

Mix. Dose: One teaspoonful once in four hours.

Also use the following:

Picrate of ammonia, 4 grains.

Water, one-half glass.

Mix. Give a small teaspoonful half way between the doses of belladonna as given above.

A slight emetic every second or third day is often a valuable addition to treatment in severe cases from the second to the fourth week.

Goose grease may be thoroughly rubbed over the breast and windpipe morning and evening. One half drachm of camphor gum to four ounces of the goose grease will make it more effective. One or two thicknesses of flannel may be worn around the chest.

Where the patient becomes pale and reduced by the disease, a dose of the "elixir of phosphate of iron quinia and strychnia," may be given three times a day.

Where the patient vomits so much of his food that his strength is failing for want of nourishment, then milk or beef essence should be injected into the bowels three or four times a day in sufficient quantities to support him. Where this is necessary always empty the lower bowel by means of an injection of salty water before injecting the nourishment.

Children must be compelled to retain nourishment in this manner where necessary.

Bromide of ammonia and bromide of soda both enjoy the reputation of being excellent remedies in whooping cough.

Syrup of ipecac in combination with paregoric and syrup of wild cherry bark in equal parts also forms a pleasant and soothing expectorant mixture when given in suitable doses.

SPASMODIC CROUP.

This form of croup is caused by inflammation of the mucus membrane and sub-mucus tissues of the larynx. The inflammation may extend upwards into the Pharynx, or downwards into the trachea or windpipe. The mucus membrane becomes sensitive, sore and swollen, so that draughts of air or particles of dust coming into contact with the inflamed surfaces, produces spasms of the parts, thus narrowing the aperture through which air passes into the lungs, to such an extent that a whistling or crowing sound is produced at each effort of respiration. As the disease advances the swelling may increase so that very great difficulty is experienced in breathing at all times. The face may become livid and the patient become exhausted. A hoarse ringing cough also attends the disease. This cough when once heard, need never be mistaken. It is perfectly characteristic, and indeed, is generally the first symptom.

Sometimes there is considerable fever, at others but little. The amount of fever is no index to the severity of the disease. As a rule, however, cases attended by considerable fever terminate favorably. This is a disease

which is liable to affect certain families more than others, showing a tendency to heredity.

Scroffula, catarrh, syphilis, etc., predispose, and often lead to the condition of the mucus membranes which produces the disease.

Exposure to winds, dampness or cold generally lead to the disease.

Treatment.—As soon as the croupy cough begins to make its appearance, the patient must at once be kept in a warm room. The temperature of the room should be kept at from 70° to 75° Fahrenheit. The patient's throat and breast should be kept covered with warm flannels and thoroughly rubbed once in four hours with the following mixture:

Oil turpentine, 2 drachms.

Spirits of camphor, 2 drachms.

Pure lard, 2 ounces.

Mix thoroughly, and rub on freely and toast in with hot flannels.

A light emetic may be given once a day or even oftener if the child chokes up badly with mucus. Use the emetic powders mentioned under the head of *general formula*.

The following may be given internally:

Mother tincture of aconite, 1 drop.

Water one-half glass.

Mix. Give a teaspoonful once an hour until the inflammation in the throat subsides.

The bowels should be moved by giving a child of five years, a half teaspoonful of sulphur in a tablespoonful of molasses, twice a day.

The child should be put into a bath-tub of water, as hot as he can stand, and be kept there until he sweats freely. This should be repeated every day until he gets out of danger. Be careful to have the room hot when the bath is given. Rub the patient off dry, after the bath, and put him in a warm, dry bed, and have him sweat two or three hours.

Instead of the turpentine and camphor, cloths wrung out of hot water and applied over the throat and breast are very good.

A five-year-old child may be given one and a half grains each, of dovers powders and quinine, once in four hours during the daytime.

The patient should be fed on nourishing food. Milk and animal teas and broths are preferred.

Whenever the child becomes badly choked up one grain of the emetic powder may be given in a little warm water, and if necessary this may be repeated once in fifteen minutes until the child vomits.

Cloths wrung out of hot water and applied to the throat and chest and renewed as often as they get a little cool, is also an excellent mode of relief.

Hot salt bags applied to the throat and chest are also excellent. These may also be applied to the feet if they are cool.

The following will also be found good to relieve the cough and aid in expectoration:

Tinct. of sanguinaria, 20 drops.

Tinct. of lobelia, 20 drops.

Paregoric, 2 drachms.

Syrup of senga, 4 drachms.

Syrup of squills, 4 drachms.

Syrup of ipecac, 6 drachms.

Mix. Dose for a child five years of age, one-third to one-half teaspoonful every hour or two as required.

Should the sulphur and molasses not move the bowels sufficiently, injections of warm soap-suds should be given every evening to aid in this purpose.

Croupous persons should habitually wear flannel next to the skin.

MEMBRANOUS CROUP.

This disease is one of the most terribly fatal in the whole list of human ailments.

I approach its consideration with a due sense of the grave responsibility which rests upon me as I write.

The disease (*take particular notice*) is very insidious in its mode of attack.

It is also contagious. It is a congener or close relative to diphtheria.

From 55 to 75 per cent. of those attacked die.

It is undoubtedly a disease of the blood.

Symptoms, Course, etc.—The first symptom is hoarseness. This is at first but slight. It gradually increases until in the advanced stages the voice may be entirely lost. A croupy cough of more or less frequency soon sets in. There is but little or no fever. The little patient may continue at his play until the disease has gone beyond cure. The great danger consists in the formation of a membrane in the larynx, the windpipe, or the lungs. Sometimes the membrane extends upward into the pharynx.

Remember that the warning signs of danger are the *hoarseness* and *croupy cough*. As soon as either one is observed the patient must be at once put upon a thorough course of treatment. No pains must be spared.

The membrane sometimes forms in the larynx and goes downward into the bronchial tubes, and sometimes the reverse is true.

Treatment:—The results of treatment in membranous croup, are generally very unsatisfactory. A large percentage of cases die under the best known treatment. I recommend the same treatment for this disease as for diphtheria. The bowels must be kept active. Sulphur must be used freely. The sulphur must be swallowed. Aconite must be used to control the fever when there is any. (See general formula for fever drops).

Cloths wrung out of cold water and applied over the throat and chest are often of great benefit. Where the patient is inclined to be cold I prefer the following:

Oil turpentine, 6 drachms.

Sweet oil, 4 ounces.

Mix. Rub over the throat and chest once in three hours. If this makes the parts so red as to threaten to blister, it must be discontinued and sweet oil rubbed on instead. Hot mush poultices should be kept on outside of the oil and turpentine to *soak it in*. These should be changed once in 3 hours.

Patients suffering with this disease should be kept warm.

Breathing the fumes of slacking lime are often excellent to relieve difficulty of breathing: this also has a tendency to cut the membranes.

When the membranes flap, enough of the emetic powder recommended under the head of general formula should be given to vomit the patient. This may be occasionally repeated if necessary. Inhalations of warm vapor are good to relieve the breathing. Corrosive sublimate is a good internal remedy. One grain may be dissolved in a pint of water and two teaspoonfuls of this may be given once an hour to a child of from one to three years old.

The following syrup is also excellent:

Ascetous tincture of lobelia, 1 drachm.

Ascetous tincture of blood root 1 drachm.

Ascetous tincture of squills, 1 drachm.

Syrup made of sugar, 4 ounces.

Mix. Dose: For a child one year¹ old, one-half teaspoonful once in one or two hours.

Hydrochlorate of Pilocarpine in 1-30th grain doses, given every hour to a child one year old, has been recommended by high authority. Where it is used hypodermically only 1-30th of a grain should be used every four to six hours. It should only be used under the care of a physician. In extreme cases the windpipe is sometimes opened with varying degrees of success, by an operation known as tracheotomy. Brandy or whisky should be used where there is extreme prostration.

DYSENTERY OR FLUX.

Dysentery is a disease which affects all ages. It may be either acute or chronic. It most frequently occurs in hot weather. The mortality attending it is from 5 to 10 per cent. In some epidemics, however, the mortality is frightful, reaching 70 to 80 per cent.

Symptoms.—Dysentery is characterized by frequent, slimy stools, which are generally mixed with blood. Sometimes there is so much blood mixed with the slime as to

give it a rusty color. Nausea or cramps may affect the stomach, and the bowels suffer more or less severely from griping pains and cramps. Sometimes the suffering from this source is terrible.

The patient is apt to have more or less fever. Sometimes the fever assumes the typhoid form. *Urgent desire to stool, accompanied by severe straining, is common.* This symptom sometimes leads to piles and prolapsus of the rectum.

There is tenderness on pressure over the bowels.

Delirium may occur in the advanced stages of severe cases.

Blood poison, arthritis, abscess of the liver or paralysis may occur as complications.

Sometimes pieces of mucus membrane are sloughed off and passed by the bowels.

Matter is also mixed with the stools after ulcers have formed in the bowels. When these ulcers have become deep, serious hemorrhages are apt to occur. The swelling and bloating of the stomach and bowels are sometime very serious. There is generally a great amount of gas in the bowels.

The patient soon gets weak after he is attacked by this disease.

Treatment.—Liquid food, of which sweet milk is the best, should form the diet. Where the patient cannot use milk then soups, beef tea, mutton broth, chicken broth, etc., may be used instead. Soft-boiled eggs are sometimes well received. Milk should be boiled before being used. The following may be used internally :

Tincture ipecac, 1 ounce.

Tincture catechu, 1 ounce.

Tincture opium and camphor, 1 ounce.

Syrup rhubarb and potash, 1 ounce.

Mix. Take a teaspoonful once in three hours, until the pain in the bowels is relieved. The above may be used four times a day until the slimy discharges from the bowels cease.

Injectations of ice-water are excellent to relieve burning and distress of the bowels. They may be used as often as needed. One or two pints may be used at each injection.

Where the above does not relieve, 3 grain doses of Dovers powder may be used half way between the other doses until the pains and cramping are checked.

The temperature of the patient should be kept so that it is comfortable to him. The room should be well ventilated and kept clean. The patient's clothing, and bed clothing, should be frequently changed and his body sponged off daily with salty water.

Aconite may be given where necessary to control the fever. For an adult put five drops of mother tincture of aconite to four ounces of water. Dose, one teaspoonful once an hour until the fever goes down.

Great care must be taken not to use too strong food during convalescence.

The patient should keep his bed during his illness, as exercise is injurious to him.

CHOLERA MORBUS.

In this disease the patient is generally taken suddenly sick at the stomach. This is followed by cramps in the stomach and bowels, accompanied by violent and persistent vomiting and copious purging of thin stools. It may last from a few hours to two or three days. It is generally caused by overloading the stomach with some indigestible substance, such as cucumbers, watermellons, etc.

Treatment.—The best and quickest method of cure for an adult, is perhaps, a hypodermic injection of one-eighth grain of sulphate of morphia with a one-hundreth grain of sulphate of atropia. This will generally relieve in one-half hour. In severe cases it will have to be repeated in one-half hour.

Instead of the above, a teaspoonful of paregoric may be given for an adult once every half hour until relief is obtained. The following has never failed, so far as the Author knows. Take of best cider vinegar one pint, bring to a boil and dissolve common salt into it as long as it will

dissolve, then add sugar until it has the consistency of a moderately thick syrup. Cool and bottle for use. Dose, for an adult one teaspoonful every half hour until the vomiting and purging ceases. The patient must control his thirst for water until the disease abates.

When the patient becomes very cold, a hot whisky or brandy punch may be used. Where the patient does not vomit, a dose of the emetic powder, mentioned under general formula, may be given, and repeated if necessary, until the stomach is cleansed.

DIARRHOEA.

Diarrhoea is so well understood as to need no description.

Treatment.—The dose here given will be for adults.

Where the patient is bilious, liver medicines, such as wahoo prickly ash, may apple, seidlitz powder, epsom salts, etc., should be used to start the liver. A good general formula for diarrhoea is the following:

Tinct. catechu, 1 ounce.

Tinct. opium and camphor, 1 ounce.

Syrup rhubarb and potash, 1 ounce.

Mix. Take a teaspoonful after each operation until the diarrhoea is checked. If this fails you had better send for a doctor.

WORMS.

There are many kinds of worms which infest the human system. The three kinds which are most common are the tape worm, the long round worm, and the pin or seat worm. We will consider each separately.

TAPE WORM.

The tape worm is broad, flat and its body made up of segments, each about one-half inch long, jointed to each other. Its name was derived from its shape. It sometimes reaches over one hundred feet in length.

There are ten different varieties known, but for practical purposes we need not distinguish between them, as

the same treatment is applicable to all. The worm is of a whitish color.

Symptoms.—The symptoms of tape worm are somewhat obscure, the only positive indication of them being segments of the worm which have passed in the feces or have been vomited. In some cases they cause but little disturbance, in others they produce terrible distress. Among the symptoms which they produce in different cases may be mentioned the following. (It may be remembered that they do not affect all alike). Sickness and pain and motion in the stomach, emaciation, loss of appetite or a great increase of appetite, dyspepsia, itching of the rectum, fullness or emptiness of the stomach, chorea, hysteria, epilepsy, fainting fits, headache, dizziness, ringing in the ears, furred tongue, fetid breath, emaciation, colicky pains, etc.

Treatment.—Quite a number of remedies have been found sufficient to remove the worm. Among these may be mentioned male fern, turpentine, pomegranate root, kousso, kamala, and pumpkin seed.

I will describe the use of two of them. These I regard as the safest.

Before using any of these medicines the patient should live sparingly on bread and meat and coffee or milk for about three days, so that the stomach and bowels may be in a measure empty.

One hundred grains of the ethereal extract of mail fern may be put into five gelatin capsules, and these may all be taken within a half hour. Only a cup of coffee should be taken in the morning before the capsules are swallowed. The capsules may be washed down with a second cup of coffee. Half an hour after the capsules are swallowed, the patient should take $1\frac{1}{2}$ ounces each of castor oil, brandy, and syrup of ginger.

The worm is generally discharged head and all in a short time.

An ounce of the kernel of pumpkin seed, bruised and made into an emulsion, swallowed at a dose in the morning on an empty stomach and followed in one and one half

hours with two or three ounces of castor oil, will generally bring the worm.

LONG ROUND-WORM.

This worm is reddish or brownish and is about the size and length of a medium-sized lead pencil. It inhabits mainly the small intestines, but is also found in the large intestines and the stomach. It sometimes crawls up the throat and out of the mouth or nose of the patient. From two or three to a hundred may inhabit the same person. As a rule not more than from one half to one dozen are found in the same person.

Symptoms.—Among the symptoms of the presence of these worms may be mentioned colic, bloating, sickness at the stomach, nausea, and vomiting, deranged appetite, which is generally stronger, furred tongue, foul breath, dry cough, picking at the nose, paleness about the mouth, grinding the teeth, and starting in the sleep, twitching of the muscles, spasms and even epileptic fits may occur. Sometimes there is diarrhœa, and the irritation of the mucus surfaces of the bowels may be so great as to produce inflammation dangerous in character. The most reliable symptom is the appearance of the worm in the stools.

Treatment.—The following formula has answered every purpose in my hands for over fourteen years :

Oil of worm seed, 1 drachm.

Oil of anise, $\frac{1}{2}$ drachm.

Tincture of myrrh, 2 drachms.

Castor oil, 6 drachms.

Mix. Dose for a child five years, one-half teaspoonful three times a day until three doses are taken. Follow the last dose in two hours with a tablespoonful of castor oil. If necessary repeat again in two days.

PIN OR THREAD WORM.

This is a small, white, round worm, pointed at both extremities. It inhabits the small and large intestines, and sometimes gets into the vagina. It is very prolific and exists in large numbers in the same patient.

Symptoms.—Itching of the rectum, which is worse at night, is the most troublesome symptom.

Where these worms exist in large quantities they may be found in the stools.

Sometimes they bother the patient during sleep, producing similar symptoms to those of the long, round worm.

They may produce a serious disturbance of the nervous system in children, such as chorea, spasms, etc.

Treatment.—A large dose of epsom salts with senna, may be repeated once or twice.

The treatment which I have recommended for long round worm is also good.

From one half to one and one half ounces of tincture of socorotina aloes may be repeated once or twice.

A suds may be made from castile soap. About two quarts of this should be injected at once by means of a fountain syringe. It may be passed off in a few moments.

Injections of salt and water are good.

DYSPEPSIA.

By dyspepsia we mean one or more diseased conditions of the stomach or bowels, or both, which interfere with the digestion and assimilation of food. Both dyspepsia of the stomach and bowels are common ailments. When merely a loss of *function* is sustained, we call it *functional* dyspepsia. When the loss of *function* is accompanied by *inflammation* of the walls of the stomach, we name the disease gastritis.

Dyspepsia is not ordinarily a self limited disease, but requires the aid of proper hygienic regulations and medical treatment to effect a cure.

Causes.—There are various causes for dyspepsia, among which may be mentioned: Excessive use of alcoholic spirits in any form; overdrugging the system by the habitual taking of such medicines as cathartics, ill-advised patent medicines, etc.; the use of too much tobacco, too much coffee or green tea; overwork, mental and nervous prostration, underwork and sedentary habits, or lack of fresh

air and proper exercise; consumption; liver complaint; eating too much, or too often, improper food: too little sleep; uterine disease; sexual excess; onanism; constipation of the bowels; grief, etc. In fact, anything which debilitates the general system, predisposes to it.

Symptoms.—Many symptoms attend the course of this disease, but the history of no two cases is precisely similar. There will scarcely any cases be found, however, in which the symptoms here enumerated will not enable the patient to determine whether or not he is afflicted with it.

Among the symptoms which attend the course of this disease may be mentioned: Derangement of the appetite, either by its becoming too weak or too strong; bloating of the stomach, or bowels, or both; sickness at the stomach, sourness of the stomach, belching up gas, or sour, or bitter, or sweet material from the stomach; distress of the stomach, which may be pain, fullness, goneness, burning, gnawing, throbbing, etc. While the distress in one case may be worse on a full stomach, in another case it will be worse on an empty stomach. Patients are apt to suffer more or less with headache, and frequently with constipation of the bowels.

The tongue is generally coated white or yellow.

Morbid craving for indigestible substances, such as chalk, clay, plaster from the walls, etc., is sometimes experienced. The breath is apt to be offensive. As a rule the patient is irritable, morose and melancholy. He also generally loses flesh. Long continued dyspepsia accompanied by gastritis, sometimes leads to ulcers of the stomach which have a fatal termination.

Treatment.—The first care in treating this disease must be so far as possible to remove all predisposing causes. If the mind is brooding over trouble it must be cheered up. A trip to the mountains or some new country is a good thing to do this. The patient must bring to bear his own will power as well, for it is impossible to cure a serious case of dyspepsia while the mind is prostrated over some overwhelming grief. Let the patient remember that God in His infinite providence has furnished a bounteous relief for

every aching heart and that "they who seek Him early shall find it."

Correct hygiene must be observed. The patient must bathe, take proper exercise, have proper food, properly cooked, and he must eat only those things which agree with him best. Beef, mutton and game are the best kind of meats. Milk, where the stomach will receive it, is good. Rice well cooked is also good diet. Sometimes soft boiled eggs agree well with the dyspeptic. Pastries and sweet meats should be avoided. Ripe fruits are often excellent. I think that pears and peaches are among the best.

In one extreme case that I knew of an exclusive diet of sweet milk (about one third cream) and graham bread, with a whiskey eggnogg taken a few minutes before using the above diet, effected a cure after the stomach refused to retain further medicine.

Most patients generally discover what kind of food best agrees with their stomach. Their own experience is often the best dietetic guide. Peptonized food was very highly recommended by Dr. Roberts before the Royal College of Physicians, London, in 1880, and has since that time gained many advocates in the medical profession. This, peptonized, or artificially digested food, is used where the stomach is too weak to retain and assimilate other forms of food. Food thus prepared is put up and sold by some reputable houses.

After the patient has regulated his hygiene and his food, he may then expect to derive benefit from medicines of the proper kind, a few of which may be mentioned here. I will present the reader with a few formulas.

Pepsin scales, 3 drachms.

Dilute hydrochloric acid, 8 drachms.

Compound tincture of gentian, 10 drachms.

Compound tincture of cardamon seed, 10 drachms.

Tincture nux vomica, 3 drachms.

Port wine to make one quart.

Mix. Shake, give one tablespoonful for an adult, one-half hour before each meal.

Where the patient's stomach is cold, six drachms of tincture of capsicum may be added to the above.

Where the stomach is sore on pressure, put in one ounce of fluid hydrastis instead of the gentian.

Where there is diarrhœa, use ten grains of subnitrate of bismuth before each meal when you take the bitters.

Where the bowels are constipated use the following:

Fluid extract cascara sagrada, 2 ounces.

Tincture ipecac, 2 drachms.

Enough syrup of white sugar to make 4 ounces.

Mix. Dose: from one-half to one teaspoonful at bed time, or as often as needed to move the bowels.

Where the stomach is very sore on pressure, a mustard draught should be used over the stomach, morning and evening, long enough to make the skin red.

Where the patient's blood is reduced, and the system is reduced, the patient may take a teaspoonful of the elixir of phosphate of iron, quinine and strychnine. He should repeat the dose three times a day between meals, and on going to bed. Where the stomach is persistently sour, the patient may take as much bicarbonate of soda in water after each meal as will lie on a nickel. This can be repeated, if necessary, for relief. It is also good for heartburn. Subnitrate of bismuth, in ten grain doses, is also good for heartburn. A moderate amount of good grape wine, or good beer, is an excellent aid in some cases, while other stomachs will not tolerate either.

ACUTE INFLAMMATORY RHEUMATISM.

This disease is mostly confined to temperate and tropical climates, and is mostly confined to early adult life. There is less liability to it after thirty-five years of age. Its tendency may be inherited. A cool, damp climate is conducive to it. It is apt to be caused by getting chilled from damp clothing or sudden changes of the weather. It may also arise from habitual indigestion. It is also quite common among those who habitually use large amounts of

beer and sour wine. Sudden cooling off after exhaustive labor is a common cause.

Symptoms.—Swelling, accompanied by tenderness and pain in one or more joints, is generally among the first symptoms. Later, fever is apt to follow. Sometimes the fever runs very high, leading to a fatal termination. During the course of the disease the inflammation is liable to shift from one joint to another.

It is always serious when the inflammation attacks internal organs. It may attack the heart, the lungs, the bowels, the brain, or the spinal cord, or the liver, or the stomach. Sometimes it affects the urinary and sexual organs. When it attacks the lungs, pneumonia is liable to occur in one or both lungs. When it attacks the heart the valves may inflame and ulcerate, or the outside sack of the heart (pericardium) may inflame and either serous effusion or pus be secreted, sometimes requiring a surgical operation to evacuate it.

When the brain becomes affected the patient is apt to become comatose or delirious, and will certainly die in a few days unless relief is obtained. Affection of the brain is always a serious symptom, and if the temperature is not high, delirium nearly always indicates the approach of a high and dangerous temperature.

Failure of the pulse indicates that the disease is affecting the heart. Persons who have previously had heart disease are more liable to suffer from it during this disease.

The tongue is generally coated and the breath offensive. The appetite is also generally impaired. The discharges from the bowels are generally very offensive. The surface is apt to be bathed with sour smelling sweat. Abscesses may form in the joints, requiring opening. The disease may last many weeks. The average length of time that patients remain in hospitals under the most approved treatment, being about thirty days.

Treatment.—The Author approaches the treatment of this dread disease with a due sense of the responsibility, and he cannot forbear to express a regret, that as yet medical science has not achieved more signal and uniform success

in its treatment. The Author desires to further state, that while he follows the teachings of the great lights of medical science in a great measure, his better judgment, fortified by an extended experience in the practice of medicine, compels him in some very important particulars, to depart from the established routine of the Regular profession, for whom I ever maintain the most exalted respect.

Permit me to state at the outset that in this disease the stomach is foul and keeps becoming foul after repeated cleansing. The liver is loaded with poisonous bile and the blood with uric acid.

Begin the treatment by giving a thorough emetic, of the emetic powder, mentioned under general formula. Where the heart's action is weak, add 3 grains of powdered capsicum to each dose of the emetic.

After the emetic, sponge the body off thoroughly with soft water in which is dissolved a teaspoonful of bicarbonate of soda to each quart of water. Rub the patient dry after the emetic. Repeat the emetic every day or two when the stomach becomes foul.

During the emetic allow the patient to drink freely of the composition tea, recommended under general formula. This tea is also excellent whenever the patient is prostrate, and the action of the heart feeble.

After the emetic put the patient on the following, which is recommended by R. P. Howard, who is Professor of Theory and Practice of Medicine in McGill University, Montreal:

“As a general rule commence with a combination of sodium salicylate, say ten grains, and citrate of potash fifteen grains, every hour for twelve doses, after which give the citrate alone every two hours, during the rest of the day. Repeat these medicines in the same way, daily, until the temperature and pain have subsided, when only half of the above quantities of the drugs are to be given every twenty-four hours for about a week longer, after which three fifteen-grain doses of the salicylate, with a like quantity of the citrate, are to be administered every day for another week or ten days, to prevent relapses.” The same

authority advises the use of quinine in the third week, in two-grain doses three times a day. The bowels may be occasionally moved by one or two Seidlitz powders or a dose of epsom salts each day.

When the heart shows signs of failure, then the salicylate must be stopped and the following given:

Pulverized capsicum, 2 scruples.

Quinine, 1 scruple.

Solid extract digitalis, 2 grains.

Solid extract gentian, 1 scruple.

Solid extract nux vomica, 2 grains.

Mix. Triturate and divide into ten pills. Take a pill once in four hours until the feebleness of the heart is overcome.

If great pain is experienced about the heart a one-tenth grain of sulphate of morphia may be injected into the arm and repeated if necessary once in three or four hours. In the meantime, give the above pill. Instead of using the morphine hypodermically, a one-eighth grain dose may be taken by the mouth instead.

A belcapsic plaster may be applied and worn over the heart while there is pain.

There are several ways of relieving inflammation and pain in the joints by local treatment. What would be the best for one case might not do so well in others. Among the various methods of local treatment may be mentioned local applications of *cold* in the form of wet bandages or ice bags or affusion of cold water on the joints. Local applications of heat are sometimes of sovereign efficacy and always safe. Heat may be applied in the form of bags of hot salt, which may be renewed as soon as they become cool. They must be used very hot in order to have the desired effect. The same may be said of bandages wrung out of *hot* water.

Water as hot as can be borne, poured directly upon an inflamed joint for a few minutes at a time and repeated every hour or two until the inflammation goes down, is often an excellent means of relief.

The following liniment is also used sometimes with telling effect:

Tincture aconite root, 4 drachms

Tincture belladonna, 8 drachms

Tincture camphor, 16 drachms

Spts. ammonia, 6 drachms

Oil turpentine, 8 drachms

Sulphuric ether, 8 drachms

Enough alcohol to make 8 ounces.

Mix. Rub into the inflamed joints once in three hours until the inflammation goes down. Keep the joints well rolled up in cotton batting. The patient must be kept very still and not allowed to move the joints. If necessary, for children, splints may be applied over the cotton batting to the limbs to keep the patient from moving the joints.

When there is profuse sour smelling sweat, the body should be sponged once in four hours with a solution of two heaping teaspoonfuls of bicarbonate of soda dissolved in one half pint of alcohol and a pint and a half of water as hot as can be borne.

When the fever runs high, applications of cold water may be best made by sponging the surface frequently, or by using wet bandages to the body and limbs, or by the wet sheet pack. In extreme cases where the fever runs very high, cold water is of the utmost importance and no time must be lost in using it thoroughly. Its use must be discontinued when the temperature gets down to $98\frac{1}{2}^{\circ}$ Fahrenheit or when the patient shows signs of heart failure or collapse.

The cold water, if it agrees with the patient, should be repeated whenever the fever runs high. A light emetic to cleanse the stomach will also aid in reducing the fever.

Two drops of mother tincture of aconite may be put into four ounces of water, and a teaspoonful taken hourly during the continuance of the fever. This will not interfere with the other remedies but it must be discontinued if the heart shows serious signs of failure.

Cold applications should be made to the brain when it becomes affected. Ice caps are sometimes needed.

Whisky or brandy should be given the patient for threatened collapse either from heart failure or for chilling of the brain.

The patient's room must be kept at an even and comfortable temperature, and draughts of air avoided. The bed clothing must be kept clean and frequently changed. Husk, cotton or wool mattresses are best to lie on. Feather beds should be avoided. The patient should not be kept between heavy wool blankets; cotton sheets are better. He may wear a night gown of light flannel.

Great care must be used to not fatigue or expose the patient while he is eating or attending the calls of nature.

During the fever or active stage of the disease the diet must be light—milk is good; buttermilk whey, when craved, is an excellent drink. Cornmeal or oatmeal gruel or barley water may be used.

Animal broths are allowable, and to these may be added barley water, sago, well-boiled rice, etc.

The patient may drink water, seltzer water, the alkaline mineral waters, and all the lemonade that he desires.

Light diet must be used until all fever is gone, and only a very cautious return to solid food, especially meats, must be permitted. Eggs are not a proper diet in this disease.

Dr. R. P. Howard, from whom I have derived much valuable information in writing this article, says that "during convalescence the patient should not be permitted to leave his bed for several days after complete removal of the fever and articular pain, and for the first four days he should occupy a sofa or easy chair. Premature walking may induce a relapse. An occasional alkaline or sulphur bath, if cautiously taken, sometimes appears to complete the recovery." He also states that where heart trouble has existed longer rest must be taken until the heart undergoes repairs.

CHRONIC RHEUMATISM.

Chronic rheumatism is a disease to which many people are subject at certain seasons of the year or upon any unusual exposure to cold and dampness, overwork, etc. It is hardly necessary to describe the symptoms in this work, as

those who have suffered with it for a long time are quite familiar with its symptoms. There is seldom any perceptible fever accompanying it.

Treatment.—The same remedies which relieve acute, are often beneficial in chronic rheumatism. The condition of the skin, stomach, bowels and kidneys must be carefully looked after. Woolen clothing worn next to the body is often of great benefit,

The following is a good remedy to regulate the stomach and bowels, and as a blood purifier:

Fluid extract cascara sagrada, 1 oz.

Fluid extract prickly ash, 1 oz.

Fluid extract wahoo, 1 oz.

Tincture guaicum, 1 oz.

Tincture poke root, 1 oz.

Tincture black cohosh, 1 oz.

Tincture rhus toxicodendron, 4 drachms.

Iodide of potash, 1 oz.

Simple elixir enough to make 2 pints.

Mix, and take two teaspoonfulls four times a day.

Between doses of the above take ten grains at a dose of salicylate of soda four times a day.

As a local application wear a belcapsic plaster over the painful part. Only use one plaster at a time.

If the system is run down tonics will be required.

For this purpose one teaspoonful before each meal of elixir of phosphate, iron, quinine, and strychnia will answer.

The patient should take a hot bath at least three times a week, rubbing thoroughly afterward with a rough towel.

The local application of the belcapsic plaster, with the internal use of four to six teaspoonfuls of lithiated hydnangea, with proper attention to bathing, is often sufficient to afford the desired relief.

The patient must not use alkali water, such as is found in some districts. Pure spring water is good. The mineral spring waters, are, some of them, excellent. The Hot Springs of Arkansas are an excellent resort for chronic rheumatics.

Hot baths and Turkish baths are of especial efficacy in chronic rheumatism.

Electricity, when properly applied, is of great benefit in some cases.

NEURALGIA.

By neuralgia we mean a painful affection of one or more nerves.

Neuralgia may effect any part of the body. As a general rule, no observable inflammation is present. Pressure sometimes relieves the pain.

In some cases neuralgia is accompanied by unbearable pain which amounts to terrible torture. Some persons are peculiarly subject to it. It is hereditary in some families.

Sometimes it is localized, and in other cases the whole system seems to be racked with pain.

Treatment.—In the treatment of neuralgia we must as far as possible, remove the cause.

We must look carefully into the condition of the liver, blood, stomach, skin and bowels. Any wrong discovered in these various departments must be righted by appropriate treatment, such as is recommended under their appropriate heads in this work. General debility combined with Anemia is also a cause of neuralgia and requires tonics, restoratives and a generous diet to effect a cure. The remedies here suggested will be mainly for the relief of pain. To prevent a return, the patient, as above suggested, must be treated upon general principles, viz: by removing all disturbing causes to health as far as can be discovered, such as the removal of tumors which are pressing upon nerves and the removal of all diseased conditions as the nervous system is in active sympathy with every function of the body.

As an internal remedy for the relief of neuralgic pain, the following may be suggested as a formula generally useful:

Sulphate of quinine, 2 scruples.

Prussiate of iron, 2 scruples.

Extract of gentian. 1 scruple.

Extract of Belladonna, 2 grains.

Extract of nux vomica, 3 grains.

Sulphate of morphia, $1\frac{1}{4}$ grains.

Mix. Triturate and make up into fifteen capsules.

Take a capsule once every five hours while the pain continues.

For neuralgia of the head and face, gelsemium often works well, sometimes effecting a radical cure of tic douloureux. It may be used as follows:

Tincture gelsemium, 5 drachms.

Sulphate of morphia, 2 grains.

Pure water, 4 ounces.

Mix, and take one teaspoonful once in two or three hours while the pain continues.

Sulphate of morphine in one-eighth grain doses repeated once in three or four hours, until relief is obtained, is often all that is needed where the stomach is not foul and where other diseased conditions do not present. It is nearly always advisable to put in three or four grains of sulphate of quinine with each dose of the morphine. Morphine so modifies the action of quinine that nearly any one can take it in combination without disagreeable effects.

Given hypodermically morphine is more prompt in the relief of neuralgia than when used in other ways, one-tenth of a grain usually being sufficient for a dose.

Various local applications are of more or less benefit, among them the time honored mustard draught is often excellent. It should be taken off before blistering and re-applied if necessary.

A piece of flannel (large enough to cover the painful area), moistened with chloroform and held on by the hand, or covered by a piece of rubber cloth or oiled silk, to prevent the chloroform from evaporating and thus kept in position over the painful part until it nearly blisters, is an excellent and easy local application and one which nearly always affords prompt relief for the time being. This may be repeated with safety as often as required.

A good liniment may be made as follows:

Tincture aconite root, 4 drachms.

Tincture belladonna, 4 drachms.

Tincture capsicum, 6 drachms.

Spirits ammonia, 6 drachms.

Spirits chloroform, 6 drachms.

Spirits sulphuric ether, 6 drachms.

Oil sasafra, 2 drachms.

Alcohol enough to make 6 ounces.

Mix, and rub the affected part occasionally.

Where the patient is anaemic give four teaspoonfuls daily of the elixir of phosphate of iron, quinia and strychnia.

Applications of cold water or ice bags are sometimes beneficial. Cloths wrung out of *hot* water and applied over the painful parts and renewed as soon as they cool slightly, are an excellent method of relief. Hot salt bags are a good method of permanently applying heat to a painful part, but are not always as good as moist heat.

Hot vapor and cloths wrung out of hot water are among the best remedies for the relief of ear ache.

TOOTH ACHE.

Where there is no cavity in the tooth use the capsules recommended in neuralgia. Where there is a cavity with an exposed nerve, use the following drops:

Tinct. capsicum, 2 drachms.

Sulphate of morphia, 4 grains.

Mix, and wet a piece of cotton with this mixture and crowd it down into the cavity until it rests against the nerve. Two grains of hydrochlorate of cocaine in the above mixture will make it still more powerful, if not absolutely infallible.

If there be no abscess at the bottom of the tooth the above will stop the worst toothache in a few minutes. Hot applications outside of the jaw are always in order. The best are hot salt bags or cloths wrung out of water as hot as can be borne.

If an abscess has formed you must go to the dentist and have it opened.

HEADACHE.

Headache arises from many different causes.

Among the causes may be mentioned, derangement of the stomach, liver, blood, kidneys, overwork, the use of too much green tea or coffee, trouble, too much study, too little sleep, the abuse of liquors, any departure from correct hygienic habits, constipation, tight lacing, chronic diseases of various kinds, etc.

Treatment.—A permanent cure can only be expected by a removal of the cause. We will endeavor, however, to give a few general directions which may be of benefit to the general reader.

Where the stomach is sick, give a gentle emetic, of the emetic powder, mentioned under general formula. After the emetic give a seidlitz powder once an hour until the bowels are thoroughly moved. After this, give 30 grains of bromide of potash once in three hours until the head is relieved. Half way between the doses of the bromide, take the following:

Tincture belladonna, 10 drops

Tincture nux vomica, 5 drops

Water, 4 ounces.

Mix, and take one teaspoonful half way between the doses of the bromide.

Where there is no sickness of the stomach, the drops and the bromide may be used without the emetic.

Where the surface is cool and pale and the patient is exhausted, one-eighth grain of sulphate of morphia with three grains of quinia, may be taken at a dose.

Cloths wrung out of water as hot as can be borne and kept on the head, generally afford great relief.

A mustard draught to the back of the neck sometimes works well.

Doses of sprudel salts powder used once or twice daily for a few weeks, is perhaps one of the best alteratives and liver regulators that can be used to prevent the return of habitual headache. The dose is marked upon the bottle in which the salts are put up.

BACKACHE.

Backache is caused by many things, among which may be mentioned disease of the kidneys, lumbago, liver complaint, uterine trouble, constipation, a strain, etc.

Treatment.—Whatever may be the cause, our effort should be made to remove it. But inasmuch as many people suffer from backache, anything which will relieve it is a desideratum to the masses and the treatment here recommended will not only help but cure many cases.

Internally the patient may take three doses a day of the kidney cleanser mentioned under general formula. He may also take one or two doses of sprudel salts powder.

Externally, wear a belcapsic plaster over the painful part.

The above will be found sufficient to relieve any ordinary case of lame back.

CRAMP COLIC.

Colic is characterized by a pain in the bowels; which is more or less paroxysmal in character. It is nearly always associated with constipation of the bowels. This, however, is not always the case as there is sometimes more or less diarrhoea or mucus discharge from the bowels. There is generally a good deal of wind in the stomach and bowels. The pains are frequently severe and generally radiate from the region of the umbilicus. Indigestible material in the stomach and bowels is a common cause of the disease. Sometimes spasm of the bowels and sometimes impacted feces lead to it. Rheumatism or gout may either of them lead to it. Cold feet may cause it.

In bad cases the surface may be bathed in cold sweat.

The pain is not so constant as in inflammation of the bowels or peritoneum. In strangulated rupture (hernia) the pain is more local, and we can generally learn from the history of the case facts which will enable us to distinguish the disease from strangulated rupture.

Pressure generally relieves the pain of colic, but aggravates the pain arising from inflammation of internal organs.

This condition should be kept in mind, to enable us to distinguish between colic and inflammation, as the treatment is essentially different.

Treatment.—The patient should be kept warm. If the feet are cold, soak them in hot water. Where convenient it is an excellent plan to allow the patient to lie for a few minutes in a hot bath until he sweats freely. Where no hot bath is at hand, wring towels out of water as hot as can be borne, and apply all over the bowels, changing them as often as they get a little cool. Keep this up until the pain is relieved. Internally a teaspoonful of paregoric may be given every half hour for three or four doses. This is often all that is needed. The first two or three teaspoonfuls may be given fifteen minutes apart, if the case is urgent. A cup of hot ginger tea will hasten and aid the effects of the paregoric.

The following is an excellent combination:

Paregoric, 1 ounce.

Tincture cardoman compound, 1 ounce.

Compound Spirits of ether, 1 ounce.

Mix, and take one teaspoonful in one-fourth cup of hot water, once in twenty minutes for three or four doses.

The following is also good:

Tincture lobelia, 1 ounce.

Fluid extract lady slipper, 1 ounce.

Tincture capsicum, 3 drachms.

Mix, and take one teaspoonful once in ten or fifteen minutes until relief is obtained. Two teaspoonfuls of this medicine may be put into a cup of warm water and injected into the bowels and repeated in twenty minutes to half an hour, if necessary.

Where the stomach is foul, a light emetic, of the emetic powder, mentioned under the head of General Formulas, should be given, then proceed with the other medicines. Where the bowels are constipated, give as an injection one quart of warm water, in which is mixed a tablespoonful of table salt, or better yet, ten grains each of powdered lobelia seed and powdered capsicum. After the injection, one or two ounces of castor oil, with ten drops of oil of

turpentine, may be given by the mouth and if this fails to physic, repeat it in four to five hours. Do not allow the patient to eat any solid food during the attack. Animal broths or hot milk are perhaps the best diet.

Colic generally only lasts for a few hours, but has been known to last for two or three weeks.

I omitted to state that where the stomach is sour, a little bicarbonate of soda water should be given. Mustard draughts over the bowels are also sometimes excellent.

BILIOUS COLIC.

In this form of colic the patient is generally very bilious, and obstinately constipated. The white of the eye, and tongue, and generally the skin, are tinged with yellow.

Symptoms.—The patient generally vomits green or yellow bile. Headache and general lassitude are common. The disease is apt to begin much more gradually than cramp colic, slight spasms or pains being felt for from a few hours to a day or two before the disease becomes violent. After the disease has existed for some time there is generally more or less tenderness on pressure over the stomach and liver, and sometimes over the bowels. As the disease progresses the vomiting becomes more obstinate, and the patient being unable to retain food, the prostration becomes more extreme. The patient is now liable to bloat extremely. The surface becomes bathed in a cold sweat, the features become pinched, and all the symptoms of general collapse set in. Toward the last the patient may vomit up feces, owing to the reversion of the peristaltic motion of the bowels.

Treatment.—The key to the situation in such cases is to get a good, thorough movement of the bowels, and the Author would suggest that no agent should be used for this purpose which could harm the patient in case it could not get through the bowels. Among such agents I would caution against large doses of calomel, croton oil, or podophyllin, as either of these, should it fail to operate upon the patient's bowels and be retained, would work immense damage to

the system under the circumstances, and be liable to thwart every succeeding effort at cure.

For relief of the pain, any of the measures recommended in the preceding article, under the head of cramp colic, may be resorted to.

Fluid extract of *dioscorea villosa* may be used in 30-drop doses every hour or two. This remedy has been highly recommended by those who have used it as almost a specific. It is safe and always beneficial.

I would advise an attempt to move the bowels by giving an injection first. For this purpose use the following:

Powdered lobelia seeds, 1 drachm.

Common baking soda, 1 drachm.

Powdered capsicum, 15 grains.

Warm water, 2 pints.

Mix. Inject and have the patient hold it a minute or two before he passes it off. Repeat a few times if it does not cause a good discharge from the bowels. I regard the above injection as the best. It may make the patient feel sick, but it will stimulate and relax him, and have a strong tendency to relieve him and cause a free action of the bowels, which are prime necessities in the case. Tobacco is sometimes used instead of lobelia, but is not so safe. On the contrary tobacco is a *deadly* drug when taken into the system in large quantities, while lobelia is an eminently safe remedy. The patient may take a seidlitz powder once every hour or two until the bowels move thoroughly. Cold water poured from a height onto the abdomen is sometimes good to aid in moving the bowels. Only a quart or two of water should be used at once. It may be repeated if necessary in a couple of hours. Glycerine suppositories as prepared by Parke, Davis & Co., are excellent to move the bowels. Ask your druggist for them.

After the bowels have once been thoroughly moved, place the patient upon the following:

Fl. Ex. cascara, 2 ounces.

Fl. Ex. wahoo, 1 ounce.

Fl. Ex. prickly ash bark, $\frac{1}{2}$ ounce.

Tinct. nux vomica, 3 drachms.

Sugar syrup enough to make 8 ounces.

Mix, and take a teaspoonful three times a day. If this moves the bowels too much, take less.

Strong doses of the best whisky or brandy are sometimes beneficial during the course of this disease.

LEAD COLIC.

This disease is found among those who work among preparations of lead; either painters, plumbers or those who are engaged in its manufacture. Owing to the fact that the disease is so rare and that those who are subject to it must necessarily employ a physician when attacked, but little will be said about the disease here.

Symptoms.—The disease is characterized by terrible cramps in the stomach, bowels, limbs, etc. The pain accompanying the attack is more severe than in ordinary colic. The pain is also more continuous. Nausea and vomiting are very obstinate, and the constipation of the bowels is very rebellious to treatment.

A pale bluish gray line appears along the margin of the gums. Patients generally recover from the attack after a few days of suffering.

Paralysis of one or more parts of the system is not an infrequent occurrence.

Treatment.—The patient may be treated upon the same general principles as bilious colic. Sulphuric acid, alum and iodide of potash are, however, recommended by high authority as exercising an especial influence over the course as well as to assist in the removal of the cause of the disease.

The following prescription by Prof. Roberts Bartholow is perhaps as good as can be proposed:

Alum, 2 drachms.

Dilute sulphuric acid, 1 drachm.

Syrup of lemon, 1 oz.

Pure water, 3 oz.

Mix. Take a tablespoonful every hour or two during the attack.

Epsom salts in one ounce doses is perhaps the best internal remedy for the constipation accompanying lead colic.

After the attack iodide of potash may be given in 15 grain doses three times a day to remove the lead from the system.

INFLAMMATION OF THE BOWELS.

Inflammation may attack only the mucus membrane of the bowels, or both the mucus membrane and muscular coat of the bowels and in extreme cases may extend to the peritoneum. Where the inflammation becomes severe the disease is very dangerous. The disease generally lasts from one to two weeks.

Symptoms.—The patient may have a general feeling of uneasiness through the bowels, and sooner or later griping pains through the bowels are felt. In some cases the griping, burning pains become almost unendurable. The bowels become very sore and tender upon pressure. More or less diarrhoea generally attends the attack, but where the inflammation becomes very severe, the bowels are apt to become dry and obstinately constipated. More or less bloating of the bowels is generally present. In bad cases the bloating may become extreme. Sometimes the inflammation extends upwards to the stomach, in which case the stomach becomes very irritable and obstinate, vomiting is liable to occur, more or less fever attends the disease. Sometimes fever precedes the presence of pain in the bowels. In unfavorable cases all the symptoms become aggravated. The pulse becomes feeble and thready, obstinate hiccough may occur, the stools may be vomited up, the bowels become more tender and bloat very much, and delirium is apt to be present. When the case becomes severe the patient lies on his back with the legs drawn up, and can scarcely endure the weight of the bed clothes on his bowels.

Treatment.—Hygiene must be carefully attended to.

Pure air of a comfortable temperature is of the first importance.

Where there is fever, sponge the patient's surface with salty water two or three times a day, being careful not to chill the patient. The bed clothing must be kept clean and sweet. The patient should remain in bed. The food must be altogether fluid, consisting of animal broths, rice soup, barley water or sweet milk. I prefer beef or mutton broth.

For the fever, give the fever drops recommended under general formula.

Where the stools are green and sour smelling, give 30 grains of bicarbonate of soda two or three times a day until this condition has been corrected.

To move the bowels where they are constipated, use the following drops:

The second decimal solution of *tr. nux vomica*, 1 drachm.

Pure water, 4 ounces.

Mix, and take a teaspoonful once in three hours until the bowels move sufficiently. This prescription should be given two or three times a day whether constipation exists or not, to assist in controlling the inflammation of the mucus membranes. One drop of Fowler's solution of arsenic taken three times a day is also good to control inflammation of the mucus surfaces.

Where the bowels are inclined to be loose the following is excellent to not only control diarrhœa, but there is perhaps nothing better to heal the mucus surfaces of the bowels:

Subnitrate of bismuth, 1 drachm.

Hydrastin, 8 grains.

Ipecac, pulverized, 7 grains.

Mix, triturate, and make into 7 powders.

Dose: one powder four or five times a day.

Where the bowels are difficult to move they can be moved by injecting two or three pints of slippery elm water. The action of the elm is also soothing to the mucus surfaces of the bowels. This injection may be repeated whenever it is necessary to move the bowels. When there is much pain in the bowels, twenty drops of tincture of opium may

be mixed with four ounces of thin starch and be injected three or four times a day.

When there is fever, with tenderness on pressure over the bowels, cloths should be wrung out of either cold or hot water and kept over the bowels. Use good, large towels for this purpose. I prefer cold water, but if this chills the patient hot water may be used. Where cold water is used change the towels as soon as they get warm. Where hot water is used change the towels as often as they get cool.

I regard the cold water bandage, where it can be used, as the one *best* application and decidedly best therapeutic measure that can be used in this disease. I regard it as vastly better than poultices, leaches, and blisters.

Where the patient is restless a 15-grain dose of hydrate of chloral may be given in one-fourth glass of water. This may be repeated in one-half to three-quarters of an hour if one dose is not sufficient to produce sleep.

Injections of ice water are sometimes of sovereign efficacy in removing inflammation of the bowels.

After the inflammation has been subdued, a very cautious return must be made to exercise and to solid food. Three or four days must elapse before either can be indulged in to any considerable extent.

CONSTIPATION.

By constipation, we mean that the condition of the bowels is that the stools are less frequent, or less in amount than in health. Constipation, whenever it exists, is injurious to health. After food is taken into the system and has remained a sufficient time for its nutriment to be absorbed and taken up by the system, it is of the highest importance that the residue, or excreta, should be promptly expelled from the body by its natural outlet, viz: the bowels. If excrementitious material be retained in the bowels after this, it is then absorbed into the system and contaminates the blood, doing immense damage to every fiber of the human body, and it is only a question of time when definite diseases which may be far removed in location from the

exciting cause, will be experienced in the economy of the system.

The amount of carelessness on this subject is amazing, and betokens a degree of ignorance that is quite inexcusable in this age of enlightenment, when every man should study the laws governing the health of his own body.

Causes.—There are many causes for constipation. Lack of fruits and vegetables, and lack of good, pure water, are two causes. Some people do not drink enough water. Sedentary habits, neglect of going to stool at regular times every day, the abuse of cathartic medicines, use of opiates and astringent medicines, excessive use of liquors of any kind weakening the nerves supplying the bowels, stricture of the bowels from cicatrices, spasm of the bowels, impacted feces, twisting of the bowels, intussusception of the bowels, diseases of the spinal marrow, diseases of the brain, tumors pressing on the bowels, old age, deficiency of bile, and exhaustion from over-exercise, are all causes of constipation.

Evil Results.—Constipation leads to dullness, dizziness, loss of appetite, headache, bilious colic, inflammation, and in some cases to ulceration and gangrene of the bowels, piles, priapism, irritability of the surrounding structures, contamination of the blood, pains in the back, palpitation of the heart, dyspepsia, furred tongue, flushing of the face, fissure of the rectum, prolapsus of the rectum, strangury, catarrh of the bladder, leucorrhea, diarrhoea, congestion and inflammation of the liver, foul breath, paralysis of the bowel, epilepsy, apoplexy, epistaxis, melancholy, and sometimes to fever.

Constipation is sometimes an effect and sometimes a cause of some of the above diseases: but no matter whether it be cause or effect it must always be attended to.

Treatment:—Obstruction of the bowels, stricture of the bowels, intussusception, etc., will be treated of in another article.

Proper hygienic habits is the first step in the removal of constipation. The patient must observe proper habits of diet, bathing, sleep, exercise, have plenty of fresh air, etc.

The patient must go to stool regularly and take his time to it. He must not resist the calls of nature, as is often done, as this always leads to constipation. Avoid overstraining, as this leads to piles and sometimes ruptures small blood vessels in the brain, causing appoplexy.

Rubbing the bowels with the hand or a rough towel or brush for five minutes, two or three times a day, is a valuable aid in removing constipation. Drinking one or two glasses of cold water or some laxative mineral water on rising one-half hour before each meal, is also valuable. Where the nerves are feeble, a dash of cold water to the body, rubbing after with a rough towel, may be used on rising in the morning, with much benefit.

Laxative fruits, among which I regard pears, peaches, and prunes, as the best, are excellent.

Good ripe pears are frequently all that is needed.

Among vegetables tomatoes, either raw or cooked, are excellent.

Cabbage, onions and beans are all good. Greens of various kinds are also very good.

An injection of one quart of cool water in which is dissolved a heaping teaspoonful of salt, may be administered each morning. This alone will, in many cases overcome constipation if persevered in for a few weeks. As soon as the water alone will move the bowels sufficiently, leave the salt out of the injections. Where necessary in habitual constipation, the following may be given:

Fl. Ex. cascara sagrada, 2 ounces.

Tincture nux vomica, 2 drachms.

Sugar syrup, 2 ounces.

Mix, and take one teaspoonful at bedtime. Lessen the dose gradually until none is needed.

Where the constipation is obstinate and the bowels have not moved for two or three days, no time should be lost. In such a case commence by giving injections freely. Internally take a seidlitz powder once an hour until the bowels move. One or two ounces of castor oil may be given to aid the action of the seidlitz powder. Cold water may be allowed to fall on the bowels from a height for a few mo-

ments at a time occasionally. This is sometimes very beneficial. Care must be used not to permanently chill the patient who must be warmly rubbed and covered after the cold water dash.

Where the stools have become impacted in the rectum so that they can be felt with the finger, they should be removed with a scoop, or a spoon handle or sometimes they may be even started with the finger. A glycerine suppository is an excellent remedy to move an obstinately constipated bowel.

After the bowels are once started, the prescription which I have given with the cascara sagrada in it, if persevered in will generally cure. Cascara Sagrada is the best single agent now known to the profession.

OBSTRUCTION OF THE BOWELS.

Obstruction of the bowels occurs from various causes, and where the obstruction is permanent, is necessarily fatal. Among the various causes of obstruction may be mentioned:

Intussusception or invagination of the bowel. This consists of one part of the bowel telescoping into another part of the bowel and being there retained. After this retention has existed for a short time an irritation is set up which leads to inflammation of the infolded portions of the invaginated bowel. Sooner or later adhesion takes place between the inflamed surfaces and in favorable cases, the invaginated end of the bowel may slough and be discharged by the rectum. This is the most common form of obstruction of the bowel, and may be caused by colic, drastic, purgatives, straining, etc. It is more common among children than adults. It may be acute or chronic.

Symptoms.—One peculiar symptom is a continual straining and desire to go to stool, with a discharge of mucus or mucus and blood. As the disease progresses, vomiting is apt to be severe, and sooner or later stools are vomited up. Tenderness on pressure over the inverted portion of the

bowels soon appears, and is attended by more or less bloating, which may later become enormous.

The invaginated portion of the bowel can sometimes be felt, about the size and shape of a piece of bologna sausage, by pressure over the bowel. It may also be felt, sometimes, by introducing the finger into the rectum.

Twisting of the Bowel.—This has occurred a few times. The old are more subject to it than the young. One side of the bowel is flatter than the other, which is liable to be distended and tympanitic. The other symptoms resemble invagination.

Strangulated Rupture (Hernia), is another cause of obstruction. If this occurs near the site of a rupture this will help in the diagnosis. The pain and suffering here is intense, and the prostration soon becomes extreme. Bloating, vomiting, etc., soon follow. It soon terminates fatally unless relieved.

Solid substances, either swallowed or which form in the bowels, are another cause of obstruction.

Permanent stricture of the bowel is another cause of obstruction. This may be caused by a permanent spasm which is followed by adhesive inflammation binding the parts together, or by a thickening of the walls of the bowel thus narrowing its caliber, as in cancer of the bowel.

Tumors sometimes obstruct the bowel.

Inflammation of the peritoneum sometimes throws out adhesive bands which encircle the bowel causing permanent stricture.

Congenital strictures sometimes occur.

In detailing symptoms, the especial attention of the reader is first called to those points which will enable him to detect obstruction of the bowels. These points are:

First. Obstinate stoppage of the bowels.

Second. Great pain in and cramping of the bowels, which is generally more or less localized to a particular location or part of the bowels.

Third. In invagination of the bowels, constant desire to go to stool accompanied by straining, and a mucus or bloody discharge, or both mixed.

Fourth. By great prostration and anxiety in knotting of the bowels.

Fifth. Tendency to vomit.

Sixth. Bloating of the bowels.

Seventh. By great pain and distress, attacking the locality of a rupture either recent or of long standing.

Eight. The patient is apt to break out in a profuse sweat. If the above symptoms are noted, no time should be lost in securing the services of the best physician within your reach.

As the obstruction continues, bloating becomes worse and all the symptoms are aggravated. Sooner or later obstinate vomiting sets in. The vomiting may become so severe that the contents of the bowels will be thrown up. Later inflammation of the bowels may be followed by gangrene. The patient is apt to become delirious and later all the symptoms of general collapse be followed by stertor, coma and death.

Treatment.—It will readily be seen that surgical interference is necessary for the removal of some of the obstructions here named, and in unusually severe cases, for all of them. It is of the utmost importance that a careful diagnosis should be made at the very outset of the trouble, as life will depend upon this in most cases.

As soon as any obstruction is discovered, no time must be lost. First, wring towels out of water as hot as can be borne and keep them over the point of obstruction, with hope of relaxing the obstruction. The hot cloths are also all important to keep down irritation, relieve pain and prevent inflammation, and to remove inflammation after it has set in. Internally inject twenty grains of pulverized lobelia seed once every half hour for three or four hours until the patient is thoroughly relaxed, with the hope that the relaxation ensuing from the combined effects of the injections and the hot cloths may so relax the bowels that the obstruction will give away. Give a pint of very warm water with each injection. After five or six doses of the lobelia it may then be stopped, as its continuance will cause the patient to vomit too much. Putting the patient

under an anaesthetic and gradually injecting one or two gallons of warm water, has relieved some very bad cases.

Injecting air from a bellows until the bowels are fully inflated is fully recommended by the best writers as being one of our best means of relief.

Where the patient suffers much pain enough morphine should be used to control pain and spasm of the bowel, but not enough to deprive the patient of intelligent consciousness. Morphine in these cases should either be used hypodermically, or by the bowel, as the stomach is liable to reject it.

Only beef tea or animal broths should be used for nourishment. No solid food, not even milk must be taken by the stomach until a passage is opened through the bowels. If the stomach will retain no nourishment, then it must be injected by the bowel every three or four hours in suitable quantities.

For all forms of obstruction except in intussusception, surgical interference must be resorted to as soon as other means have failed, and before inflammation has set in.

I failed to remark that where foreign bodies have been swallowed, that the food should be solid in character so that it may possibly in its descent through the bowels carry the foreign body with it.

The results of surgical interference under the modern regime is becoming yearly, more encouraging.

CHOLERA.

Cholera is a contagious epidemic disease which always finds its starting place in India, and more particularly in Bengal. All epidemics can be traced to India. The contagion is always carried by clothing, articles of commerce, etc, and not by a wave of air from one country to another. It is therefore a disease against which we can effectually quarantine. Out of fourteen epidemics that have reached Staten Island, the quarantine station of New York, only four were permitted to reach the city.

The most common way by which the poison is intro-

duced into the system, is by water drank. The contagious principle must come in contact with the stomach or bowels before it can act. It may be inhaled into the mouth or throat and be carried, by swallowing, into the stomach.

Only a small amount of the poison is necessary to contaminate a large amount of water. Allowing water in which clothes have been washed, or allowing choleraic discharges to flow into wells, rivers and lakes from which people drink, is a fruitful source of contagion and sometimes leads to frightful epidemics.

Filth, crowding, lack of ventilation and want of hygiene in general, tend to the spread of the epidemic. Hot weather is conducive to the spread of cholera.

The clothing, filth and stools of the patient are also a fruitful source of spreading the disease.

Symptoms.—In most cases there are three stages of the disease. First, a period of diarrhœa with the attendant symptoms of languor, coated tongue, loss of appetite, cramps in the calves of the legs, bilious looking stools discharged from five or six to one dozen or more times a day. This condition may last from two or three days to a week and may be all there is of the disease, but more generally after a period ranging from a few hours to a few days, the second stage comes on.

Second Stage.—In the second stage vomiting sets in and the previous diarrhœa becomes more copious and alarming. The matter discharged from the stomach and bowels soon assumes the appearance of rice water. It is of a semi-transparent grayish color and consists, mainly, of serum and epithelial debris. It is asserted that in severe cases the stomach and bowels become almost entirely denuded of their epithelial lining membrane, which of course, destroys their absorbent power, leaving these parts perfectly raw. The cramping of the limbs, bowels, stomach, chest, and in fact of the whole system, now becomes something fearful to behold. The cramps are generally attended by intense internal heat. The thirst is now unquenchable, and the vomiting very copious and persistent. Great quantities of rice-water discharges gush from the stomach and

the bowels. The surface is bathed in a cold, clammy, sticky, perspiration. The features become terribly pinched and shrunk, in fact the whole body shrinks and shrivels until great folds of skin can be pinched up between the thumb and finger, returning very slowly to their place. Pretty much all the fluids of the body run off by the stomach and bowels. The eyes become very much sunken and the face presents a pinched, ghastly, and death like appearance. The breath becomes cold, and the temperature taken under the arm-pit, or under the tongue, may be 15° or 20° below normal, while the patient complains of terrible inward burning and quenchless thirst. Any lowering of the temperature of the body is seldom complained of by the patient. The pulse is generally feeble, flickering, and very rapid, and as the disease fully develops into the third stage, becomes imperceptible in the extremities.

Third Stage.—The third stage is merely a continuance of the second stage, carried so far that the system suffers a *general collapse*. The surface of the whole body and limbs becomes cold and of a purple or blue color. The mouth becomes almost as cold as the dead. The breath becomes still colder than in the second stage. The surface of the body may become badly shriveled, the very eyes seem to dry up in their sockets. The profuse clammy sweat continues. The patient's cry for water—cold water to quench a thirst which cannot be assuaged, is piteous in the extreme. The discharges and cramps may continue or cease until shortly before death, which generally comes in from one to twenty-four hours. However, some patients have recovered even from this stage. Although sometimes the patient becomes delirious, he is apt to retain his mind sufficiently to give rational answers to questions while sufficient strength remains. The muscles of the body are apt to contract and relax long after all symptoms of life are extinct. The eyes have been known to open and close quite a while after the patient had been pronounced dead by competent authority.

Sometimes collapse is the first and only stage of the

disease, the patient never rallying. In such cases death generally comes on in a few hours.

Treatment.—When the first symptoms of diarrhœa come on no time is to be lost. Our main hope of a cure is to arrest the disease in the first stage. If the stomach is foul first give a light emetic, of the emetic powder, mentioned under general formula, to cleanse the stomach so that medicines can act. Only use enough of the emetic to cleanse the stomach of any foul material. Give a teaspoonful of bicarbonate of soda in a glass of warm water to sweeten the stomach. After the stomach settles commence the treatment by giving a drink of burnt brandy. Prepare the brandy as follows:

Best French brandy, $2\frac{1}{2}$ ounces.

Best loaf sugar, $\frac{1}{2}$ ounce.

Mix. Set fire to the brandy and stir it while it burns. Let it burn as long as it will. Burn it in a porcelain dish. After the brandy has cooled to blood heat, drink it at a dose and repeat in two hours until the diarrhœa is checked. At the same time the brandy is being used take the following:

Tincture of opium and camphor, 1 ounce.

Tincture catechu, 1 ounce.

Syrup of rhubarb and potash, 1 ounce.

Tincture of prickly ash berries, 6 drachms.

Tincture belladonna, 2 drachms.

Mix. Dose: a teaspoonful once an hour, half way between the doses of burnt brandy. Keep up the above treatment until the diarrhœa is checked, then let the doses be given, two or three times, as far apart for a few doses more.

I cannot advise raw spirits of any kind in this disease.

The patient may be nourished on strong beef tea; rice may be boiled with the tea.

A dose of pepsin may be taken after each drink of beef tea. Where the stomach is very weak, great care must be used not to give too much nourishment at a time. It is sometimes best to commence with a little buttermilk whey. Where there is a tendency to vomit easily, a little sweet

milk, to which an equal amount of lime water has been added, is good.

Cool water is an urgent necessity where the discharges have been free or where the patient has vomited much. But care must be used not to allow the patient to drink too freely, as this might again start up the discharges.

Solid foods must not be returned to, in even the mildest degree, until the strength has improved greatly.

If the above medicines are not sufficient to check the diarrhœa, the patient may be allowed to drink freely of a strong tea made from cinnamon bark.

He may use this between doses of the above.

A heaping teaspoonful of grated nutmeg repeated in two or three hours, is an excellent addition to the above treatment, where the diarrhœa is obstinate. In extreme cases a dessertspoonful may be taken for a dose.

When the second stage comes on accompanied by severe cramps and vomiting, other measures must be resorted to.

First, I would recommend teaspoonful doses once in ten to twenty minutes, of the salt, sugar and vinegar mixture, which I recommended under the head of Cholera Morbus.

While I have not seen this mixture tried in Cholera, its marvelous efficacy in stopping the vomiting and purging accompanying Cholera Morbus, fully justifies a trial of it in Cholera, as the two diseases are so very similar in action. It is a powerful diffusive stimulant and seems eminently adapted to this condition.

The remedies recommended in the first stage may be continued where needed for the Diarrhœa. When that is checked stop giving the Catechu, Cinnamon, Burnt Brandy and Nutmeg, but continue the Tincture of Opium and Camphor, Prickly Ash and Belladonna until the patient gets warmed up.

Twenty or thirty drops of Tincture of Opium may be occasionally given by injection into the bowels to prevent collapse, and overcome cramps. Care should be taken not to use enough Opium to Narcotize the patient.

Hypodermic injections of morphine over the stomach are sometimes good to check vomiting.

Blankets wrung out of hot mustard water and made to envelop the patient's body and limbs, is perhaps the best form of applying external heat to arouse the patient from a condition of collapse. Hot stones, hot bags of sand or salt, hot bricks, and all manner of hot appliances may be resorted to as occasion requires.

I submit the following powder as a dose for collapse, which I have seen work wonders:

Sulphate of morphia, $\frac{1}{2}$ grain.

Sulphate of quinine, 6 grains.

Camphorated dover powder, 6 grains.

Mix, take at a dose. It must not be repeated. If one dose does not arouse the patient, it is useless to repeat it. In a subsequent collapse, however, it may be repeated. During collapse, hot external applications must be pushed to their full limit. It is bad policy, however, to blister the skin.

Pieces of ice or very cold water, held in the mouth is sometimes good to allay thirst. Small pieces of ice may sometimes be swallowed with good advantage.

Remember all through, that opium in some form is the great internal agent, not only to prevent, but to arouse from collapse after it has set in.

After the patient is up and about, great caution must be used about diet and exercise for at least a month, to prevent a relapse, which is nearly always fatal. Dyspepsia and diarrhœa or constipation of the bowels is liable to follow an attack of Cholera, and must be treated accordingly.

Sometimes the nervous system is left in a badly shattered condition and must receive due attention.

Cause.—The cause of Cholera is still a matter of doubt.

Prof. Koch discovered a comma shaped bacillus in choleraic discharges which he regards as the cause. Future investigations will be required before this matter is set at rest.

In closing my remarks on this subject, I will say that a volume would be required to do justice to it. While the

discussion of the subject as here presented is far from being as full as the Author could have desired, it is as extended as the limits of this work will admit of, and I fondly trust that I may have suggested many things that will be of value in the time of need.

Note.—During the prevalence of a Cholera epidemic, every family should have a full supply of medicines on hand, and be prepared to meet the disease at the very outset, as the loss of time required to secure the services of a physician might be fatal to the patient. A physician should, however, be called at the earliest possible moment.

CHOLERA INFANTUM OR SUMMER COMPLAINT.

This disease receives its name from its close resemblance to Asiatic Cholera.

It is a very fatal disease among children, more frequently attacking them during their first or second summer.

Symptoms.—This is a disease which is attended by vomiting, diarrhœa, high fever, great loss of strength, and rapid emaciation. In fact, when it is fully developed it presents all the symptoms of Asiatic Cholera.

As a rule the disease comes on somewhat gradually.

Three or four discharges a day may be passed for a few days or a week and sometimes even longer, causing no especial uneasiness. The stomach now becomes irritable and the little patient throws up its food. Fever sets in and is apt to run high, especially internal fever. The temperature taken by the rectum often runs up to 106° or 107°. The surface and extremities are apt to be cool and they become colder as the disease advances. The stools become more and more frequent and more watery. They become so thin that they will scarcely color the cloth upon which they are passed and they soak into the cloth like water, leaving little or no residue. In some cases they are very offensive at first but less so as they become more watery. The thirst becomes intense and the patient's stomach often becomes so irritable that even water is vomited up nearly as soon as

it reaches the stomach. Convulsions or coma, or both, are liable to appear toward the close of the disease.

Toward the close of the disease the eyes become terribly sunken, and the features very thin—almost cadaveric, and the patient generally becomes exceedingly listless, utterly oblivious to everything about him until death closes the scene, which is often the case in two or three days. Where the case terminates favorably, all the symptoms begin to abate until the case in every respect assumes only an ordinary diarrhoea, which, under proper treatment, soon gives away.

Causes.—Hot weather, improper food, and improper hygienic surroundings, are the main causes so far as we know.

Treatment.—The first step in treatment is to remove the causes of the disease as far as we can. This disease is often brought on by improper diet. Where the child does not nurse its mother we must get the best substitute for mother's milk that we can. Where it is possible, every mother should nurse her child through the second summer, as mother's milk is the one greatest mainstay of the infant. Perhaps the best substitute that can be offered for mother's milk is the following, which was recommended by Prof. Leeds before the New York County Medical Association:

“Take 1 gill of cows milk, fresh and unskimmed, 1 gill of water, 2 tablespoonfuls of rich cream, 200 grains of milk sugar, $1\frac{1}{2}$ grains of extractum pancreatis, 4 grains of sodium bicarbonate. Put this in a nursing bottle. Place the bottle in water made so warm that the hand cannot be held in it without pain longer than one minute. Keep the milk at this temperature for exactly twenty minutes. The milk should be prepared just before using.” From a pint to a pint and a half should be given the infant during twenty-four hours, according to its age. No solid food must be given during the attack.

Caution must be taken not to let the child use too much cold water. It must not, however, be denied a liberal amount of good, cool, pure water.

As soon as the diarrhoea commences, give the following:

Tinct. of catechu, 1 ounce.

Tinct. opium and camphor, 1 ounce.

Syrup rhubarb and potash, 1 ounce.

Mix, and for a child one year old give 30 drops in a half teaspoonful of water, once in two hours, until the diarrhoea is checked. Between the doses of the above, give one grain of subnitrate of bismuth for each month of the child's age, once in two to four hours, according to the urgency of the case. For a child twelve months old, the dose would be twelve grains. As soon as the vomiting and discharges are stopped, then stop the first prescription but give smaller doses of the bismuth three or four times a day for several days longer. Where vomiting is severe the bismuth should be given every two hours until it stops and a mustard draught can be occasionally used over the stomach long enough to make the skin under the draught red, but do not allow it to blister. Where prostration is extreme, a mustard draught may be applied along the spine, using the same precautions not to blister.

Where symptoms of collapse are imminent, the whole body and limbs of the child may be wrapped in a sheet or blanket wrung out of water as hot as the skin will endure. When reaction takes place the skin must be rubbed and warm, dry flannels kept next to the skin.

Where there is high fever, use the following drops in addition to the diarrhoea medicines that have been recommended.

Mother tincture of aconite, 1 drop.

Water, 4 ounces.

Mix, and give a teaspoonful once an hour until the fever goes down.

Where the head is hot two or three grains of bromide of potash may be given with each dose of the above until the head cools off and the nervous symptoms disappear.

Owing to the high internal fever and intense thirst the child, unless watched, will take more milk than when in health. This should not be allowed. Cold water must

be used in reasonable quantities to allay thirst. Ice water is not to be used ordinarily.

Where the extremities are cold and the body hot, the former should be wrapped in hot cloths and the latter in a cool cloth at the same time. Dipping the whole body in a bath as hot as can be borne and leaving it there until the blood is thrown to the surface, is a radically good measure for threatened collapse. In extreme cases a liberal amount of powdered mustard may be sprinkled into the hot bath, great care being used not to allow any of it to get into the patient's eyes.

After the attack, the following powder is excellent to maintain a proper action of the stomach, bowels and liver:

Sulphate of hydrastine, 1 grain.

Subnitrate of bismuth, 1 drachm.

Mix, triturate, and make into 15 powders.

Give one three or four times a day in a little mother's or cow's milk.

The child should be bathed in warm water regularly, using good friction afterwards.

May God spare your little ones and grant that the remedies may have the desired effect. I hold my little nine month's old girl on my knee as I write, and I think I know how to feel for you and weigh every word accordingly, as I write for the relief of your own precious baby.

Note.—Two or three grains of saccharated pepsin should be given to the child each time after it takes nourishment while its stomach is weak and unable to digest without it.

BILIOUSNESS.

Biliousness consists of a derangement of the functions of the stomach and bowels and liver. The liver secretes an excess of vitiated bile. The digestion is imperfect and the stomach is weak and apt to be sour. The appetite is either too weak or too strong. Eruptions of wind from the stomach are not uncommon. The bowels are either constipated or too loose. There is apt to be a good deal of wind in the bowels, arising from the presence of imperfectly di-

gested material. The tongue is coated white or yellow, or streaked with both. The whites of the eyes become yellow, and the skin is of a muddy complexion. The patient generally experiences a dull headache, with dullness of mind, confusion of ideas, ringing in the ears, loss of energy, drowsiness, and perhaps more or less dull pain and sometimes even soreness in the liver. The stools are either yellow or clay colored.

Causes.—Biliousness may be caused by malaria, over-eating, too much sweet, starchy or fat food, etc. Some people, doubtless, inherit a bilious temperament.

Treatment.—The causes must be removed as much as possible. The diet must be light and the patient must eat sparingly. Sometimes going without food for a day will remove an attack.

The patient should not use fats, sweets, pastries nor much food which is very starchy, such as potatoes, white bread, etc. Lean meat may be used sparingly. Sweet milk or sour buttermilk are both good.

A Seidlitz Powder may be taken two or three times a day, for a few days or until the tongue cleans. The following prescription may be used until the patient is well:

Quinine, 2 Scruples.

Vallets mass (Iron), 2 Scruples.

Extract of dandelion, 1 Scruple.

Extract of belladonna, 3 Grains.

Extract of nux vomica, 5 Grains.

Pulverized capsicum, 20 Grains.

Mix, triturate and make into 20 capsules.

Take one 4 times a day.

Sometimes where biliousness is obstinate a dose of calomel works better than anything else. A 5-grain dose may be taken at bed time and worked off in the morning by a large dose of castor oil, or two or three Seidlitz Powders may be taken an hour apart to work it off.

Careful attention must be paid to bathing, exercise, pure air, sunlight, etc.

A 5-grain dose of Pepsin should be taken after each meal.

INFLAMMATION OF THE LIVER. (ACUTE).

Acute inflammation of the liver is a very dangerous as well as distressing disease, and one which if neglected, is very likely to lead to fatal consequences.

Causes.—This is more commonly a disease of hot climates, but is not by any means unknown to temperate climates. Among the various causes of this disease may be mentioned taking cold, intemperance, injuries, such as blows, falls, etc., malaria, gall stones, abuse of mercury, rheumatism, gout, excess of rich animal food, excessive emotions as anger, grief, tumors pressing upon the liver, suppression of accustomed discharges, dyspepsia, inflammation of the stomach, obstinate constipation, etc.

Symptoms.—The patient may first experience fever accompanied by chilliness, pain over the region of the liver, pain in the shoulders, oppression and heat at the pit of the stomach; vomiting is frequently met with, and pain and soreness on pressure over the liver, swelling of the liver. The fever is generally of the high grade with bounding pulse to commence with. The tongue is coated yellow, the eyes are yellow, the skin becomes yellowish, the mouth tastes bitter, and the head aches.

The bowels are usually constipated; however, sometimes they are loose. The urine is scanty and high colored or yellow.

In some instances the pain is dull and aching. This is where the main body of the liver is affected. Sometimes the pains are sharp and lancinating. This is where the serous membranes enveloping the liver are mainly affected. Pain upon breathing is often experienced.

The patient generally lies upon the right side, sometimes, however, he may lie on the left side or prefer to sit up in bed with his knees drawn up. A dry, irritable cough is a common symptom. The stomach suffers to a greater or less degree during the attack, and the appetite is generally wanting. The patient generally suffers from a persistent headache. Toward the close of the disease the fever may assume a typhoid form, the pulse becoming smaller

and more frequent, and the coat on the tongue assuming a darker hue. In this stage delirium is common in severe cases. The sleep is generally unrefreshing and broken. The patient is irritable, morose and despondent.

Treatment.—We have here a disease to deal with which requires prompt measures as the disease generally terminates either in suppuration or resolution in a week or ten days. Every energy must be bent to ward off the one great danger viz.: abscess of the liver.

As soon as the disease is discovered a thorough emetic should be given. It may be prepared as follows: Put three heaping teaspoonfuls of pulverized lobelia seed into $\frac{1}{2}$ pint of blood warm water. Stir and give in tablespoonful doses once in ten minutes until thorough vomiting takes place, and until the patient's skin is bathed in perspiration, and until the fever is reduced. Before giving the emetic give a teaspoonful of common baking soda (bicarbonate of soda), in a glass of blood warm water. If the vomit comes up sour again during the emetic, give half as much more soda water so as to keep the stomach sweet during the emetic.

Between doses of the emetic give two or three good swallows of the composition tea that is recommended under General Formula. Let him drink the composition tea as hot as he can. Each time after the patient vomits have him drink a glass of water as warm as he can drink it. This will prevent cramping of the stomach.

I am aware that this is heroic treatment and I have but one excuse to offer for it, viz: *it is the best.*

After the emetic sponge the whole patient with soda water. Continue to give freely of the composition tea every hour or two. After the emetic give the following to further reduce the fever and inflammation.

Mother tincture of aconite, 2 drops.

Mother tincture of bryonia, 1 drop.

Water, 4 ounces.

Mix, and give a teaspoonful once every half to one hour according to the amount of fever and inflammatory symptoms.

Two hours after the emetic give three grains of calomel and repeat once in three hours until two or three doses are given. After the last dose has been given three hours, then give a seidlitz powder once an hour until the calomel works freely. When the bowels need moving again use teaspoonful doses of powdered Culver's root, steeped in hot water. These doses may be repeated once or twice a day. If they do not keep the bowels sufficiently loose they may be aided by Seidlitz Powders.

Towels may be wrung out of very hot water to which may be added 10 or 15 drops of oil of turpentine to the quart, and be kept over the inflamed parts. These towels must not be allowed under any circumstances to get cooler than the body. They must be attended to day and night. Great care should be taken not to use enough Turpentine in the water to blister the skin.

When the wet cloths are removed their place should be supplied by hot flannels and hot bags of salt, so as to prevent chilling the parts. Care must be used not to wet the patient's bedding. His surface must be sponged every day with warm soda water, being rubbed dry afterwards. Be careful not to chill him while bathing. Do not allow the temperature of the room to get so low that you cannot maintain a warm sweat on the patient's body.

Where the aconite is insufficient to keep down the fever, then the following may be given once in three hours:

Tartar emetic, 1 grain.

Dover's powder, 45 grains.

Mix, triturate, and make into 15 Capsules. Give a capsule once in three hours.

If in spite of all the treatment here recommended the fever and inflammatory symptoms should rise to a violent pitch, the emetic may be repeated the same as before, then return to the fever medicines, etc., as before.

The patient's diet must be of the lightest character, consisting only of gruels, buttermilk, whey, rice soup. etc. No solid food must be taken until the crisis is passed, and then it must be most cautiously resumed.

Vapor baths are always of sovereign efficacy. Direc-

tions for giving them are found in a former part of this work.

Mustard draughts over the stomach and carbonic acid water to drink is good to control the vomiting. A physician should be called in early in this disease and it will be well for the patient, if the physician can be prevailed upon, to use a humane treatment, such as is here laid down, instead of the old method of salivation and blood letting murder.

CHRONIC INFLAMMATION OF THE LIVER.

This disease is sometimes a sequel of acute inflammation, but it is more often an original disease.

It often happens that this disease is so carefully masked as to escape detection by the ordinary observer. It may even progress until an abscess is formed before the patient is apprised of the nature of his trouble.

It sometimes happens that the ordinary symptoms of dyspepsia are all that mark the progress of the complaint.

Among the symptoms that ordinarily mark its course may be mentioned enlargement of the liver, pains in one or both shoulders, oppression of the stomach accompanied more or less by a sensation of heat, indigestion, tenderness on deep pressure upwards under the lower margin of the ribs on the right side, more or less fever of evenings, constipation of the bowels, alternated occasionally by looseness of the bowels, occasional attacks of colic, tenderness at the pit of the stomach, muddy or jaundiced hue of the skin, yellowness of whites of the eyes, headache, perversion of the appetite which may be too weak or too strong, floating specks before the eyes, confusion of ideas, loss of memory, scanty and high colored alternated with clear urine, scalding of the urine, and a dry, harsh skin. Some of these symptoms may be wanting in any case, but enough of them are present to enable the careful observer to diagnose the case.

Treatment.—Owing to the fact that the disease is so essentially chronic, great care must be exercised not to under-rate the grave importance of a possibly fatal issue.

The one greatest danger is the formation of an abscess in the substance of the liver.

However, the disease may so derange the natural functions of the body that death may come before an abscess forms.

Correct hygiene is the first step looking toward cure.

The patient should take a thorough hot bath at least every day.

Where it is possible he must have a bath tub and lie in the hot bath until he is bathed in perspiration. He must, on coming out of the bath, be thoroughly rubbed with rough towels until he is dry.

Internally the patient may take a pill of one-twentieth of a grain of bichloride of mercury three times a day. Where necessary to move the bowels, either seidlitz powders or sprudel salts powder may be used in sufficient quantities each day to give the bowels one or two good movements.

The anti-constipation granule, made by Parke, Davis & Co., contains minute quantities of podophyllin, nux vomica and belladonna, and they are an excellent medicine to promote a gentle flow of bile. One may be used for a dose two or three times a day. They may be taken at the same time that the above bichloride of mercury pill is being used. The two kinds of pills being used at once exert a powerful alterative effect. The bichloride of mercury can be bought in the form of gelatin coated pills.

A five grain dose of calomel worked off in eight hours, by a large dose of castor oil, may be occasionally used with great advantage.

It occasionally happens that the patient needs remedies which are more of a tonic nature in addition to the alterative treatment.

The following is both tonic and laxative.

Fluid extract of dandelion, 6 ounces.

Solution of ferrous mallate, 1 ounce.

Fluid extract of wahoo, 1 ounce.

Fluid extract of prickly ash, 1 ounce,

Tincture of gentian compound, 1 ounce.

Port wine to make two pints.

Dose: two table spoonfuls three times a day. This pre-

scription is an excellent liver tonic and will support the blood. If it is not sufficiently laxative in any given case, then add from one-half to one ounce of fluid extract of cascara sagrada to the bottle of bitters. The bichloride pill may be used in connection with the bitters.

Externally use the following liniment over the liver:

Croton oil, 4 drachms.

Sassafras oil, 2 drachms.

Olive oil, 10 drachms.

Mix and rub on over the liver two or three times a week, or just often enough to keep the side sore. If the side gets very much inflamed from the use of the liniment, use slippery elm or flaxseed poultices on the side until the inflammation goes down, then rub cosmoline over the inflamed surface to soothe it and keep the air out. Open the pustules with a pin and gently press the matter out. When the side heals up use the liniment again as before. Sometimes it may be necessary to rub the side twice or three times in one day to make the side sore. When it breaks out in pustules, stop the liniment until the side is healed up. The tonic pills, mentioned under general formula, are an excellent tonic where one is required in this disease. A physician should be consulted in this disease to ascertain the presence or absence of an abscess. The formation of an abscess is generally marked by an increased pulse, general rigors, tendency to perspiration, throbbing and heavy feeling over the liver. The pain generally becomes less acute.

The abscess must not be opened until a focal point of external inflammation shows that adhesion has taken place between the membranes of the liver and the side. However, the abscess may point and run off through the lungs, stomach, bowels, or be discharged into the peritoneum. When the abscess bursts into the peritoneum the result is nearly always fatal peritonitis.

JAUNDICE.

Jaundice consists of a yellowish discoloration of the skin and whites of the eyes. The urine also becomes yellow or even so dark with the admixture of vitiated bile that it assumes a reddish or wine color. Even the sweat becomes tinged with bile so as to color the undergarments worn. The skin becomes harsh and itches. The tongue is coated yellow, the head aches more or less, the mind is dull, the patient is despondent and perhaps sullen and morose, the stools are more or less clay colored or whitish, the stomach is dyspeptic, there is considerable wind on the stomach and bowels, a bitter taste in the mouth, either loss of appetite or excessive appetite, more or less pain over the region of the liver, enfeebled circulation of blood in the extremities, constipation and diarrhoea alternated, soreness on pressure over the gall duct, slowing of the pulse, slight fever occasionally, etc.

Causes.—The most common cause of jaundice is catarrh of the gall duct, with thickening of its mucus membranes to such an extent as to prevent the proper flow of bile into the intestines, causing the bile to be re-absorbed into the blood. It is also caused by yellow atrophy of the liver, sclerosis of the liver and old chronic derangements of the liver.

Treatment.—The yellowness of the skin must be washed out by the kidneys. For this purpose use the following :

Acetate of potash, 6 drachms.

Tincture nux vomica, 1 drachm.

Fluid extract corn silk, 2 ounces.

Simple elixir, 2 ounces.

Mix, and take one teaspoonful in one-half glass of water four times a day.

For the bowels, take one drachm of phosphate of soda three times a day.

After the above has been used four or five days, then use the following :

Sulphate of quinine, 2 scruples.

Extract of dandelion, 2 scruples.

Vallatt's mass, 2 scruples.

Extract of belladonna, 3 grains.

Extract of nux vomica, 5 grains.

Pulverized piperin, 10 grains.

Mix, triturate, and make into 20 capsules.

Dose: one capsule four times a day.

Continue the mixture which contains the acetate of potash. Use the same liniment over the gall duct that was recommended in chronic inflammation of the liver, and use it in the same way. The patient must bathe every other day in hot water.

Lean meats, milk, succulent vegetables, oysters, shell fish, etc., are the best diet. Foods, such as potatoes, white bread, etc., must be partaken of sparingly. Sweetmeats and pastries must be avoided. The patient should eat very light meals. Very gentle outdoor exercise may be taken. Physical or mental work or worry should be avoided. The patient may use electricity lightly two or three times a day. The positive pole may be applied for a minute over the inflamed gall duct and the negative be held in the hand. Only a light current should be used. Krull recommends giving an injection of from two to four pints of water at 60° Fahrenheit two or three times a day. The patient must hold the injection in the bowels as long as possible. He says that he has never had to repeat it over seven times. It can do no harm to say the least.

GALL STONES.

Gall stones are concretions which form in the ducts of the liver, the bile ducts, and the gall bladder. They vary in number from one to thousands, and are of various sizes, colors, and shapes. They vary in color from brown, yellowish brown, to a yellowish putty color. They vary in size from the size of a flax seed to several ounces in weight. They are formed from the solid constituents of the bile becoming inspissated. Their chief element is cholesterin. Their only mode of escape is through the gall duct; but

owing to the size which they sometimes attain, they are unable to escape by this route and, in consequence, they must either remain or find an exit through the surrounding structures by ulceration, which they sometimes do. Sometimes they ulcerate through into the stomach, the peritoneum, the bowel, or through the walls of the abdomen, into the outer world. Gall stones may lie in the various locations where they are formed for an indefinite period without causing any material disturbances, in some cases. In other cases, they cause more or less inflammation, accompanied by tenderness over the gall, bladder or liver or stomach, and are somewhat painful.

When they are attempting to pass through the gall duct into the bowel is when the chief pain is felt. This generally occurs two or three hours after eating. The pain is often very distressing, lancinating and tearing in character.

Patients sometimes faint away under the terrible suffering.

The pain continues until the stone is discharged into the bowel. These attacks of pain constitute what is known as hepatic colic. Occasionally the patient is attacked with chills and vomiting and cold sweat will stand out in great beads over the body. The sufferings of the patient are so intense at times as to call upon all the fortitude of the patient and shake the stoutest nerves of those who are witnesses. So intense is the suffering that the patient is sometimes thrown into convulsions which may in the most extreme cases be followed by delirium, coma and death. Where the case terminates favorably, however, when the stone is liberated and passes into the intestine through the natural channel, (the gall duct), immediate relief is experienced.

Some patients suffer from frequent attacks.

Treatment.—Three things are indicated in the treatment of gall stones, viz: First, to relieve pain; second, to remove the gall stones; third, to prevent the stones from reforming.

To relieve pain, a hypodermic injection of one-eighth to one-fourth grain of morphine and one-eightieth to one

one hundred and twentieth grain of sulphate of atropia, may be administered over the seat of the disease, and repeated in two or three hours if necessary. This is our best remedy for the relief of pain. The same dose may be given by the stomach, or if the stomach will not retain it, then it may be given by injection into the bowels in warm water. Cloths, wrung out of water as hot as can be borne and kept over the seat of the pain, are also excellent to not only relieve pain, but to assist in relaxing the parts and assist in the passage of the stone through the bile duct. Mustard draughts, applied over the painful part are also excellent. A thorough relaxing emetic, of the emetic powder, mentioned under general formula, is also excellent to not only relieve pain but is one of the best known agents to expel the stone. The relaxation following the administration of chloroform and ether is sometimes followed by an expulsion of the stone. The anaesthetic must be inhaled until the patient is thoroughly under its influence. While the patient is thoroughly under its influence, the attendant should gently manipulate the gall bladder, and try to press the stone through the bile duct into the bowels. In some cases happy results have followed this procedure by the passage of the stone.

A liberal dose of Epsom Salts should be taken by the patient as soon as the attack shows itself. The bowels should be thoroughly cleansed. The action of the salts may assist in the passage of the stone.

When the painful attack is relieved then put the patient upon phosphate of soda. Give a drachm three times a day in warm water. Keep up the phosphate of soda for months, if necessary, to prevent a recurrence of the attack. This is the remedy which is most highly recommended by the celebrated Prof. Roberts Bartholow, who is one of the greatest medical men of this generation. He also recommends a daily morning sponge bath of a weak alkaline water. A teaspoonful of bicarbonate of soda to one quart of water is about the right proportion.

The patient should abstain from fats and sweets as far as possible. Malt liquors are also injurious.

Succulent vegetables and lean meats may be used. Milk is one of the best forms of diet. The patient should use as little bread as possible.

Bread made from Gluten flour is best.

The patient should take proper exercise. Sedentary habits are harmful.

ACUTE INFLAMMATION OF THE SPLEEN.

Sometimes this is an original affection, and sometimes it occurs as a complication in other diseases, as in rheumatism, typhoid fever, intermittent fever, relapsing fever etc. It may also be caused by taking cold in the spleen, external violence, over exertion and straining, excessive mental emotions as grief and anger, portal congestion and inflammation. Malaria may also cause it.

Symptoms.—The disease is generally preceded by chilliness, followed by fever. The fever may be of a high or low grade, uneasiness, heat, and pain soon appear in the spleen. The patient is apt to be affected by pains running up the left side of the breast with flashes of heat and flushing of the face, stitches of pain from breathing, and shortness of breath. A dry, harassing cough, which is very distressing in some cases, tenderness on pressure over the spleen, enlargement of the spleen, nausea and vomiting, which is sometimes extreme, headache and sometimes delirium are among the main symptoms of the disease. The patient prefers to lie on the right side or back. While proper treatment generally cures the patient, the case may terminate fatally in one or two weeks. Hiccough, serious bloating, delirium and general symptoms of collapse generally set in before death.

Sometimes abscess is formed where the inflammation runs on a week or ten days. Chilliness, moisture of the surface, cessation of the pain, throbbing in the region of the spleen, and softening of the pulse are generally the symptoms which point toward the formation of an abscess. The formation of an abscess is a grave complication in this disease.

The abscess may point and open externally, or into the peritoneum, lung, bowel, or stomach. When it opens into the peritoneum it is liable to produce fatal peritonitis.

Treatment.—Where the disease occurs as an original affection, it may be treated on the same general principles as in acute inflammation of the liver, except that all external applications which were used over the liver must in this case be used over the spleen.

I refer the reader to that article where he will find appropriate treatment given at length. When the disease is a complication of some other disease, then use such external application as are required and treat the system at large for the original disease.

The same rules apply for opening abscess of the spleen as for abscess of the liver.

AGUE CAKE OR CHRONIC INFLAMMATION OF THE SPLEEN.

By this term we mean a *chronic* enlargement of the spleen, resulting from malarial influence. This disease may last for many years, and is seldom directly fatal, but it is often a source of continued annoyance and ill-health, covering a long period of time.

Symptoms.—It occasionally happens that there is so little suffering at the seat of the disease that the patient is unaware of its existence until his physician calls his attention to the enlargement in his left side, under the lower ribs, where the spleen is located ; but it more often happens that the chronic enlargement of the spleen is accompanied by considerable pain and soreness in the left side. The enlarged spleen can frequently be felt extending below the ribs as a doughy feeling tumor. Sometimes it becomes so large as to cover a large part of the abdomen. A careful observer, by using gentle pressure over the abdomen, can trace its margin with his finger.

There is nearly always tenderness on pressure over the enlarged spleen. As a rule, the complexion is sallow; there is more or less disturbance of the stomach, such as loss of

appetite, sourness of the stomach, heartburn, bloating, occasional sickness, etc. The patient is generally subject to headache. Constipation of the bowels is common and the extremities are generally cool. It occasionally happens that more or less fever is experienced during the course of the disease.

The patient should pay strict attention to all the laws of hygiene.

A hot bath should be taken three times a week. The patient should take his regular sleep, and avoid over exertion. Mutton, beef, fowls and game, are the meats he should use. He may also use fish and shell fish. The diet should be nutritious and supporting. Where the digestion is weak, a dose of wine of pepsin may be taken at meal time. Warm clothes should be worn and if the patient is in a malarial locality, he should move out of it.

Internally he may use the following:

Tincture muriate of iron, 1 ounce.

Dilute phosphoric acid, 6 drachms.

Sulphate of quinine, $1\frac{1}{2}$ drachms.

Sulphate of strychnia, (in solution) $\frac{3}{4}$ grain.

Syrup of sugar enough to make 4 ounces.

Mix, and take a teaspoonful in water three or four times a day. The tonic pills, under general formula, may be used in place of the above tonic. The wine of pepsin mentioned under general formula, is an excellent preparation to use at meal time.

Externally, rub on thoroughly over the spleen three times a day, uvedalia ointment as prepared by Wm. S. Merrell & Co., of Cincinnati, and to be had of any druggist. After rubbing on the ointment, spread a piece of dry flannel over it and toast in with a hot iron for five or ten minutes.

Where the bowels are inclined to be constipated, take a dose of the liver syrup, mentioned under general formula, two or three times a day.

Persist in the above treatment, and it will generally cure the most obstinate case.

INFLAMMATION OF THE KIDNEYS, (NEPHRITIS).

The kidneys are subject to inflammation from various causes; among these causes may be mentioned: strains across the small of the back, taking cold, intemperance in the use of liquor, improper drinking water, sexual intemperance, etc.

Symptoms.—Among the more prominent symptoms may be noted, pain more or less severe in one or both kidneys, accompanied by *tenderness on deep pressure* over these organs; pain in the testicles, drawing up of one or both testicles, pain in the head of the penis, scalding of the urine, pain along the course of the ureters, high colored urine, matter, tube casts and blood, and sometimes albumen in the urine, etc.

Sometimes in severe cases there is nausea and vomiting, fever, headache, suppression of the urine, delirium, coma, convulsions, general collapse, and death.

Occasionally during the course of the inflammation an abscess may form in one or both kidneys. In such cases there is puss and blood in the urine.

Treatment.—Where the disease is acute and the symptoms urgent, the skin dry and hot and the urine more or less suppressed, then begin the treatment by giving an emetic of the emetic powder, mentioned under the head of general formula. After the emetic give the patient a thorough vapor or hot air bath, after which put him to bed with hot applications about him to keep the skin moist. Then open out the bowels by giving a seidlitz powder once an hour until the bowels are thoroughly cleaned out. The physic may be very materially aided in its work by giving an injection of one or two quarts of warm water. The bowels must be kept loose throughout the attack. Mustard draughts and hot applications should be used over the kidneys. Give the patient plenty of warm elm or flaxseed tea to drink. If the urine colors a piece of blue litmus paper very red, showing a highly acid state of the urine, then bicarbonate of soda may be given in half drachm doses

three or four times a day until the acid condition of the urine is corrected.

Teaspoonful doses of fluid extract of queen of the meadow may be given in a little warm water four times a day until the proper flow of the urine is established.

Hot baths, vapor baths, emetics, hot fomentation to the back, an active condition of the bowels and a moist condition of the whole surface must be kept up until the urine is started.

Where the patient vomits, mustard draughts must be used over the stomach and repeated draughts of cold carbonic acid water must be given. These may be aided where necessary by hypodermic injections of one-eighth grain of morphine, given four or five hours apart where it is necessary to repeat.

In cases where the symptoms are not so severe and where the urine is not suppressed, the patient may wear a belcapsic plaster over the back and take the following:

Fluid extract queen of the meadow, 1 ounce.

Fluid extract corn silk, 1 ounce.

Acetate of potash, 6 drachms.

Syrup of sugar, 2 ounces.

Mix, and give one teaspoonful four times a day in a half glass of water.

The patient's diet must be light, consisting of milk, beef tea, rice soup, etc. He must not work, and he must take but little exercise until all the symptoms are relieved. A thorough hot air, hot water, or vapor bath should be taken every day until the inflammation is subdued.

BRIGHT'S DISEASE.

By this name is designated a number of different diseased conditions of the kidneys. The proper detection of these various degenerations requires the aid of chemistry and the microscope, and requires more skill in their use than is found except among experts, hence any attempt to give a minute description of them in a work for general use would be quite useless.

A few general symptoms, however, will be beneficial to the general reader.

Symptoms (of chronic form).—The symptoms of this disease, in the beginning, are so obscure as to elude the observation of the patient, sometimes, for years. Pain and tenderness in the back may be *entirely wanting*. Just think of it! A wasting disease of the kidneys, which is slowly and surely breaking them down without causing them a single pain. This is a disease so obscure that the average physician is unable to diagnose it with certainty.

This disease should only be entrusted to the hands of an expert.

I desire to call the patient's attention to two or three prominent symptoms only. Let him fix them in his mind.

First, *bloating of the face, eyelids, etc.*

Second, *swelling of the backs of the hands.*

Third, *swelling of the feet.*

When all of these habitually occur in the morning, Bright's disease of some form may be suspected.

If in connection with the above, albumen be found in the urine, the diagnosis is quite certain, however, not always, as other things are occasionally taken into account when making a diagnosis.

To examine the urine for albumen, boil a small quantity in a test tube. If a white deposit appears, then add a few drops of nitric acid to the urine, and if the sediment do not disappear, then it is albumen.

Treatment.—Bathe the surface two or three times a week.

A hot bath in a bath tub is good. The hot air or vapor bath is the best however.

Keep the bowels loose. The liver syrup, mentioned under general formula, may be used for this purpose. The following may be taken for the kidneys:

Tincture murate of iron, 4 ounces.

Acetate of potash, 2 ounces.

Tincture digitalis, 6 drachms.

Syrup of sugar to make 1 pint.

Mix, and give one teaspoonful in water four times a day.

The patient should have plenty of pure water to drink, but must not use fermented liquors. Two or three glasses of beer may be allowed each day. Having paid a great deal of attention to diseases of the kidneys for years, I shall be pleased to correspond with sufferers anywhere about their cases. I am also fully supplied with the finest hospital apparatus for analyzing the urine and will be pleased to perform this for those who so desire.

KIDNEY COLIC, OR NEPHRITIC COLIC.

This disease is caused by the passage of small calculi from the kidneys along the ureter to the bladder. It is a terribly painful disease and one in which the value of proper treatment is perhaps as fully recognized as in any disease known to man.

The pain is caused either by the sharp angles of the stone coming in contact with the sensitive mucus membrane of the ureter, or by its size dilating the ureter, and generally both causes operate to produce pain.

Symptoms.—The attack generally comes on when the patient is apparently in good health. The attack is very sudden. A sharp lancinating pain strikes the kidneys or is felt along the course of the ureter, or the pain may be felt chiefly in the hip. The pain generally shoots downward from the kidney to the testicles or groin, and upwards into the abdomen.

Whenever the stone starts forward along the course of the ureter, another paroxysm of pain is felt.

In this way the progress of the stone can generally be traced until it falls into the bladder, when a sudden cessation of all the symptoms takes place.

During the attack there is a frequent desire to pass urine with but slight ability to perform it. Vomiting is frequent, the patient is very nervous, the surface is generally bathed in a cold sweat, and is pale in appearance.

The patient is restless and rises and walks about the room, endeavoring by change of position, to find relief.

After relief is obtained, the patient should watch the urine to see if the stone has passed from the bladder, for should it remain, it may grow larger.

Its removal from the bladder will be treated of in the following section.

Treatment.—One or two pints of warm water with a teaspoonful of pulverized lobelia seed should be injected into the bowels as soon as the attack comes on. The injection should be retained five or ten minutes. It will serve a double purpose. It will not only cause a free evacuation of the bowel, but it will so relax the ureter as to facilitate the downward passage of the stone. After the first injection has passed off, a second one containing one-half pint of water, and half as much lobelia as in the first dose, may be given and *retained*. This will still further relax the patient and aid in the passage of the stone. Twenty drops of laudanum may be added to the second injection where there is much pain. Should the second injection cause the patient to vomit, copious drinks of warm water should be given after the patient vomits each time.

A heaping teaspoonful of common baking soda, (bicarbonate of soda), should be given in a glass of water four times a day during the attack, to assist in dissolving the stone.

Fifteen grains of acetate of potash three times a day, is also good to assist in dissolving the stone.

Where the pain is very severe, hypodermic injections of one-tenth or one-eighth grain of morphine may be administered in the patient's arm once in four or five hours if needed.

Cloths (and large ones), wrung out of water as hot as can be borne must be kept constantly over the course of the ureter, or painful part, in order to relax and facilitate the passage of the stone. The patient should also lie in a hot water bath two or three times a day for a half hour at a time.

Seidlitz powders should be used every day to keep up a free evacuation of the contents of the bowels.

Should the case be obstinate owing to the size of the

stone, an abscess is liable to occur where the stone is lodged. Should the case not be relieved in twelve hours a physician should be sent for.

The food should consist of milk, beef tea, rice soup, etc. No solid food should be taken.

STONE IN THE BLADDER, OR GRAVEL.

Various substances, such as uric acid, oxalate of lime, cystine, etc., are deposited in the bladder where they sometimes aggregate into solid or semi-solid masses called calculi, gravel, or stone. They sometimes become quite large, weighing several ounces and become a source of constant aggravation and irritation, and where they become large they will, unless removed, produce inflammation, gangrene and death.

Symptoms.—The urine is generally irritable and smarts the urethra on passing. The irritation of the stone in the bladder causes almost a constant desire to urinate. If the stone falls over the mouth of the bladder while the patient is passing urine, the stream will be suddenly stopped, and will not start until the patient changes position.

The stone causes a great deal of pain in the bladder, and the irritation from it sometimes causes spasmodic stricture of the neck of the bladder, so that the patient is compelled to use a catheter to draw off the urine. Patients troubled with stone are liable to attacks of renal colic. Mucus and blood are often seen in the urine, and it becomes offensive. The only infallible symptom is to feel the stone with a surgeon's sound. I omitted to say that active motion, such as running, jumping, horse back riding, or riding in a rough riding vehicle, causes pain when the stone is becoming large.

Treatment.—To treat such cases as these in a proper manner it is absolutely necessary to analyze the urine and find out what particular poison is being deposited in the form of a stone. When this is found out then remedies can be taken by the mouth or thrown into the bladder by injection, that will sometimes dissolve the stone. Where

this cannot be done, then a surgical operation must be performed, to either crush the stone or take it out of the bladder by an operation called lithotomy. Inasmuch as the general reader cannot analyze the urine, an expert must be called in. Parties may write to me if they desire, and I will make the analysis for them and tell them what course to pursue.

In view of the above it will readily be seen how utterly useless it would be for me to suggest any medical treatment in a work which is designed for the use of the general public.

RETENTION OF THE URINE.

By retention of the urine we mean the inability of the patient to pass his urine. This may arise from two causes. In one case the nerves supplying the muscles which exert pressure upon the base of the bladder are paralyzed, and in the other case there is a continuous spasm of the sphincter muscles of the bladder. This last condition may be owing to some irritation of the spinal column or to an irritability of the urine sufficient to cause spasm of the sphincter muscle of the bladder.

Treatment.—If the urine has been retained until the bladder is distended very much, a catheter may be used to draw off the water. Where a catheter is not available, the patient may be placed in a hot sitz bath and allowed to remain there until the bladder is sufficiently relaxed to allow the escape of the urine. The sitz bath may be aided by injecting into the rectum 20 drops of tincture of gelsemium and one-half teaspoonful of pulverized lobelia seed and 20 drops of tincture of opium. The patient should retain the injection until the system is thoroughly relaxed or until the urine is passed. If this does not afford relief no time must be lost in using the catheter, for over distension is liable to rupture the bladder.

Where the urine smarts and burns and is irritable, a teaspoonful of bicarbonate of soda may be given in a glass of water three times a day until the condition is relieved.

Where the nerves of the fundus of the bladder are par-

alyzed, a pill of one-thirtieth grain of strychnia may be taken three times a day. Other conditions of the system must also be properly looked after. The positive pole of a faradic battery may be applied for one or two minutes three times a day over the base of the bladder, while the negative pole is placed opposite over the sacrum. This alone will sometimes promptly cause the evacuation of the urine.

INCONTINENCE OF URINE.

This consists of inability on the part of the patient to properly retain the urine in the bladder and is just the opposite of retention of the urine.

It is caused by weakness of the muscles surrounding the neck of the bladder or by excessive irritability of the nerves supplying the mucus membrane of the bladder, or by excessive irritability of the urine.

Symptoms.—In this disease there is sometimes a constant dribbling of the urine which irritates the external surfaces over which it flows, and causes an almost unbearable stench and filth about the clothing surrounding the parts.

Sometimes this constant discharge causes foul ulcers to appear about the genitals.

Where this disease is caused by a rupture of the wall dividing the bladder and the vagina, in difficult labors, the urine enters the vagina above the mouth of the urethra, its natural outlet.

Treatment.—Where an opening is formed between the vagina and the bladder (vesico vaginal fistula), a few stitches must be taken by the surgeon to close up the rent.

Where the difficulty is caused by excessive irritability of the nerves of the bladder, the following prescription may be used:

Tinct. of queen of the meadow, 1 ounce.

Fluid extract of corn silk, 1 ounce.

Bromide of potash, 1 ounce.

Syrup of sugar, 2 ounces.

Mix, and for an adult give one teaspoonful four times a day.

Where there is relaxation of the sphincter muscle sur-

rounding the neck of the bladder, a pill containing one-thirtieth grain of strychnia may be taken three times a day, and a cool bath may be taken every morning, rubbing briskly afterwards with a rough towel. The negative pole of the battery may be held over the neck of the bladder and the positive pole placed over the sacrum for one or two minutes three times a day.

The following is a good general mixture for this trouble:

Tinct. of belladonna, 30 drops.

Tinct. of cantharides, 30 drops.

Water, 4 ounces.

Mix, and give one teaspoonful four times a day for an adult. Should the medicine begin to irritate the bladder and urinary passage too much then it must be checked until unfavorable symptoms disappear and then continued again as long as needed.

INFLAMMATION OF THE BLADDER.

Sometimes this disease is acute and sometimes chronic.

It is a disease which sometimes has a very extended course.

Symptoms.—Among the more characteristic symptoms may be mentioned, pain in the bladder, tenderness on pressure over the bladder, desire to urinate frequently, straining after the passage of the urine, sense of weight over the bladder, pus, mucus and blood in the urine.

The urine is apt to smell foul after the disease has existed for sometime.

Treatment.—Where the disease is acute the patient should take a hot sitz bath three or four times a day. Where the disease is more chronic the patient may content himself with a general hot bath once a day. During the acute symptoms the patient should use internally the following:

Mother tincture of aconite, 2 drops.

Tincture of cantharides, 2 drops.

Water, 4 ounces.

Mix, and give one teaspoonful once an hour until the symptoms abate. Also use hot fomentations, hot cloths, mustard draughts, etc., over the bladder. Keep the bowels loose by giving one or two seidlitz powders a day. A half teaspoonful of bicarbonate of soda may be given in a half glass of water three times a day. This will render the urine less acid and less irritating. Where the pain is severe a hypodermic injection of one-eighth grain of sulphate of morphia may be administered two or three times a day, or 20 or 30 drops of laudanum may be added to a little warm water and taken, and repeated in three or four hours if necessary.

Light and fluid foods should be used, such as milk, vegetable soups, oatmeal gruel and barley water.

Where the disease is of long standing and the acute symptoms have abated, then the patient may use the following:

Tincture of iron, 1 ounce.

Acetate of potash, $\frac{1}{2}$ ounce.

Syrup of sugar, 3 ounces.

Mix, and take a teaspoonful in a half glass of water four times a day. He may use the following to keep the bowels regular:

Fluid hydrastis, 1 ounce.

Fluid extract cascara lagrada, $\frac{1}{2}$ ounce.

Syrup of sugar, $2\frac{1}{2}$ ounces.

Mix, and take one teaspoonful two or three times a day as needed to move the bowels. As a wash for the bladder, he may use the following:

Pulverized hydrastis, 4 ounces.

Borax, 4 ounces.

Mix, triturate and put a heaping teaspoonful of this to a pint of boiling water, steep for ten or fifteen minutes, inject half of this amount into the bladder three times a day while lying on the back, then turn over onto the stomach, so that the fluid may come more thoroughly into contact with all parts of the bladder. Outside of the bladder use a mustard draught often enough to keep the surface red and still not blister.

The patient should take a hot bath in a bath tub every day. He should lie in the water until his surface is thoroughly bathed in perspiration. Where the patient gets weak and needs a tonic, he may use the tonic pills mentioned under general formula. While using these, he may stop using the iron preparation mentioned above.

Continue the above treatment until the case is cured, which will not be very long as a rule.

DIABETES INSIPIDUS.

This disease is characterized by an excessive flow of clear urine which is of low specific gravity. The patient drinks large amounts of water, and the skin is apt to be dry and harsh, and the mouth more or less dry. The appetite may be impaired or too strong. Headache is not uncommon. The patient is apt to become weak with more or less pain in the back.

Causes.—The cause is generally very obscure. But among the causes which have been noted, are excessive use of liquors, affections of the nervous system, prostatic disease, chronic inflammation of the kidneys, syphilis, shocks to the system, such as fright, taking cold, hysteria, hereditary influence. etc.

Treatment.—Treatment is often unsatisfactory. The patient should lie in a hot bath for ten or fifteen minutes, once or twice a day until the skin is bathed in perspiration. Rub the body briskly on coming out of the bath until it is dry.

Where the patient is weak, use the tonic pills mentioned under general formula.

Use the liver syrup, mentioned under general formula, to keep the bowels regular.

Where the digestion is bad, use a dose of the wine of pepsin, mentioned under general formula, before each meal.

To controll the excessive amount of urine, use the following:

Fluid extract *Rhus aromatica*, 1 ounce.

Tincture belladonna, 2 drachms.

Sugar syrup to make 4 ounces.

Mix, and give one teaspoonful four times a day.

If the above fails, give the patient from one-half to one drachm of fluid extract of ergot four times a day. Ergot should not be given more than four days out of each week.

The above treatment will be apt to give good satisfaction in many cases.

The patient may be allowed to use good nourishing diet and drink liberally of water.

Where there is pain, a five grain dose of the camphorated dover's powder, under general formula, may be taken three or four times a day.

DIABETES MELLITUS.

This disease is caused by some affection of the pneumogastric nerve, either at its origin or in its ramifications or connections.

Symptoms.—The disease is characterized by a copious flow of urine in which sugar is present to a greater or less degree. The quantity of sugar passed in twenty-four hours may vary from one or two ounces to two or three pounds.

The patient suffers from thirst which may be intense and insatiable, the mouth and throat are apt to be *obstinately* dry. The urine has a sweetish or violet smell, and when it drops upon the boots or clothing it leaves a white spot when it dries. The patient suffers from rapid emaciation, which may progress until it becomes extreme. More or less fever is apt to attend the course of the complaint. Sooner or later the lungs, as a rule become more or less involved. Tubercles generally form in their substance. Obstinate constipation or exhaustive diarrhoea may alternate. The appetite may be seriously impaired or be ravenously strong. Irritation, itching and ulcers may annoy the sexual organs. The clothes about the urinary organs acquire an offensive smell. More or less impairment of vision is apt to occur. Inflammation of the retina, atrophy of the optic disc, and cataract, may any or all of them occur. Total blindness sometimes results.

Fehling's test for sugar in the urine is as good as any.

It can be secured of druggists with instructions how to use. A simpler, but not so reliable test, is made by putting two drachms of liquor of potash into a test tube, then add three drachms of the suspected urine and bring to boil over a spirit lamp. If sugar is present to a considerable extent, the mixture after boiling one or two minutes, will turn to a reddish brown color. The specific gravity of urine in this disease is generally high, ranging from 1025 to 1040 or even higher, according to the amount of sugar present.

Treatment.—Proper hygiene and proper diet is of the highest importance. The patient may lie in a hot bath for ten minutes each day rubbing after with a rough towel until the surface is dry. Be careful not to chill the patient while bathing. The clothes should be warm, and the patient should have plenty of pure air and may take very gentle exercise out doors. The bowels may be kept regular with the liver syrup, mentioned under general formula. Where diarrhoea exists, it may be checked by the diarrhoea mixture mentioned under general formula.

A strictly skim-milk diet is probably superior to all medicine in arresting the appearance of sugar in the urine. Prof. James Tyson, of the University of Pennsylvania, recommends that an ordinary tumbler full of skim-milk be given once in two hours during the day, commencing at seven or eight o'clock in the morning and continuing until the same hour in the evening. Where a milk diet does not sufficiently support the system and satisfy the cravings of the appetite, it may be aided by the patient using such diet as meats of any kind, oysters, and all kinds of fish, fresh or canned. Liver, however, should not be used as it contains sugar. Such vegetables as mushrooms, cabbage, spinach, celery, green string beans, young onions, and green vegetables in general may be used. But those which contain starch and sugar should be avoided.

Eggs are also allowable. Bread in any form made from gluten flour or bran may be used.

Nuts of every kind, except chestnuts, may be used.

Sour wine may be used in moderate quantities: Moderate amounts of whisky and gin are also allowable.

Prof. James Tyson recommends giving codeia in this disease as follows: "One should begin with one-fourth of a grain dose three times a day, increasing one-fourth of a grain daily until the sugar disappears or the remedy ceases to have any effect, or until drowsiness is produced. Thus, gradually increasing, I have reached as high as forty-seven grains in a day."

He speaks of codeia as a highly efficient remedy. I have had no experience with the drug, but would not hesitate to use it on the recommendation of so high an authority.

Permit me to say in closing, that a rigid skim milk diet accompanied by proper hygiene and total abstinence from all starchy and saccharine food, is the best treatment now known to the world to eliminate sugar from the urine.

Failure may, however, attend any plan of treatment. As a rule the *older* the patient, the better are the chances of cure. In this last respect the disease differs from most others.

SYPHILIS, OR POX.

This is a disease of the blood, and is either inherited or comes from contact of a sound genital organ with one which is diseased. It is when uncontrolled, one of the worst diseases known to man, and is one of the greatest curses of our race.

Symptoms.—In from nine to twenty-one days (and sometimes even longer) after contact with a syphilitic ulcer, a white pustule appears on the parts which come in contact with the virus, which breaks in two or three days, and at the end of five or six days a round, smooth-edged, gray-colored ulcer appears. The excavation of the ulcer gradually draws to an apex at the bottom. When pressure is made with the finger the edges of the ulcer are felt to be *hard*. These ulcers are called primary chancres. They may appear either upon the genitals of either sex, or they may appear upon the scrotum of the male, or be situated in the vagina or at the mouth of the womb in the female. These primary chancres last for several weeks, and as a

rule disappear, soon to be followed by an angry-looking eruption of the surface of the body. There is not a single tissue of the body which escapes the baneful influence of this terrible poison where it runs unchecked in the system. The throat becomes sore, catarrh attacks the nasal cavity, the eyes are subject to destructive inflammation, the hair falls out, terrible abscesses attack the groins, the most loathsome and hideous ulcers and various appearing eruptions cover the body, the genitals may almost rot, the liver and kidneys suffer different forms of disease, abscesses may even attack the lungs, the bones may rot, the most unsightly scars appear where old ulcers have healed. These scars may horribly disfigure the face and brand the patient in the eyes of the world as a victim of his indiscretions. The disease is generally accompanied by a good deal of fever in the first and second stages.

When the chancre or ulcer first appears, great care should be taken to be sure whether the ulcer be a hard or soft chancre.

In true syphilis the edge of the ulcer, which first appears upon the privates, is hard to the touch and slightly elevated above the surrounding surface.

In chancroid, or soft chancre, the edges of the ulcer are soft.

In hard chancre the edges of the ulcer are *smooth* and in soft chancre the edges are *uneven* and *irregular*.

In hard chancre the ulcer passes in a slanting direction downwards toward the center of the ulcer, and in soft chancre the edges of the ulcer are straight up and down.

The ulcer in soft chancre is *painful*, whereas, in true syphilis, the first ulcers which appear are attended by little if any pain.

Soft chancre is a local disease and may be cured by local treatment, while hard chancre is the result of the disease in the blood, and unless properly treated will surely break out all over the surface of the patient.

Sometimes the chancre contains the poison of syphilis and of chancroid both, where it is known as a *mixed* chancre. These cases are very liable to confuse the diagnosis

unless an expert be called in. I would here advise the patient to apply to a skilled physician to assist him in determining the true nature of the disease, after which, especially in *true syphilis*, he may *confidently* follow the instructions laid down in this book for a cure.

Treatment.—When an ulcer appears it should be allowed to develop for a few days until it can be determined whether it is a *soft* or a *hard* chancre inasmuch as the soft chancre only requires local treatment for a few days or weeks at the most, while hard chancre shows a disease which requires a treatment for its extirpation reaching over several years at least. Hence the great importance of a correct diagnosis.

If the chancre be *soft* it should be thoroughly touched all over its surface with chemically pure nitric acid. This may be done by taking a pine stick, shaved down to the size of a match. Then dip it into the acid and smear it thoroughly over the surface of the ulcer. It will burn sharply for a few moments, when it will quit.

Then dress the ulcer with the following powder:

Iodoform, 15 grains.

Tanin, 5 grains.

Mix, trituate, apply the powder to the ulcer three or four times a day. Keep it covered with a cloth or raw cotton. When the ulcer becomes foul, wash it with warm water and castile soap. Three grains of sulphate of morphia may be added to the above powder where the ulcer is painful.

Keep up the above treatment until the ulcer is healed.

A hard chancre may be treated in the same manner as the above, and in addition the patient must take medicine for his blood.

The following treatment for the blood may be used.

Iodide of potash, 127 grains.

Bichloride of mercury, 2 grains.

Succus alterans, 4 ounces.

Mix. Dose: a teaspoonful three times a day. Keep this up three weeks out of four for the first three months. After that reduce it one-half and use it in the same way for three months longer. If after using the remedy for six weeks

the mercury should begin to make the bones ache, then the following may be used for two weeks:

Iodide of potash, 1 ounce.

Succus alterans, 4 ounces.

Mix. Dose: a teaspoonful three times a day. Use this for ten days and then return to the former treatment as directed above.

During the treatment keep the bowels loose with the liver syrup mentioned under general formula.

Where fever exists the fever drops, mentioned under general formula, may be used as needed. The patient should take a hot bath three times a week.

After the first six months if there is no eruption, the patient may still continue to use the liver syrup where necessary to keep the bowels regular, and he should also use the following:

Iodide of potash, 1 ounce.

Succus alterans, 4 ounces.

Mix, and take a teaspoonful three times a day one-half of the time for the next six months. After that the medicine may be taken one-third of the time for another year. Should symptoms occur after that, showing that the disease was not thoroughly eradicated, the medicine should be used as indicated above for several months longer.

Where the patient becomes pale or weak he may take a teaspoonful three times a day of elixir of phosphate of iron quinia and strychnia. This tonic may be used when the patient is resting from the potash or the mercury mixtures.

If the above course is diligently pursued from the start, the patient will not be apt to have any more eruptions appear upon the surface of the body. Whenever the disease shows any active symptoms, the first syrup mentioned above which contains the mercury, should be again used for a month or six weeks.

Where the patient will persist in it for a sufficient length of time, he may again become healthy and it is the opinion of some eminent men that he may have healthy offspring. Where buboes come in the groins, it is best to consult a physician.

GONORRHEA, OR CLAP.

This disease consists of an inflammation which may attack the urethra of both male and female, it may also extend into the bladder, and even into the kidneys in some cases. It extends into the vagina of the female and sometimes up into the womb, and even out through the fallopian tubes, thus reaching the peritoneum where it produces a terrible inflammation. It is liable to extend through the seminal vesicles of the male, thus reaching the testicles which are apt to become very badly swollen, and it may attack the glans penis and the skin surrounding it. It sometimes causes venereal warts to come about the mucutaneous portions of the genital organs.

Symptoms.—In from one day to one or two weeks after exposure, a viscid secretion begins to appear upon the exposed mucus membranes, and is in the urethra of the male, and in the vagina of the female. After a day or two the discharge consists of cream like pus, and in a few days longer it may have a yellowish green look.

The penis becomes more or less swollen and red and tender, and is apt to be painful. There is a frequent desire to urinate, and the urine is apt to scald on passing. Sometimes there is considerable fever. The acute symptoms of the disease last two or three weeks, when they subside, and the discharge becomes more mild and less painful, and if the discharge continues until it becomes very chronic, the disease is then called gleet.

Causes.—This disease is contracted by any mucus membrane of the body coming in contact with the gonorrheal discharge.

Let the reader remember that *no mucus membrane* is proof against the contagion resulting from direct contact with gonorrheal virus, the eye, nose, mouth, and rectum are no exception to the general rule.

The nature of the gonorrheal discharge has been a matter of some dispute, but it is claimed by many standard writers that it can be originated in various ways. A foul, acrid leucorrhea may cause it, and excessive sexual inter-

course between perfectly healthy persons may cause it. So that the husband who contracts this disease from his wife must remember that the disease may have originated without impure intercourse with another. Let him remember that this is no uncommon occurrence in the very best families. One thing is very certain, viz: That a man may contract a discharge from coming in contact with leucorrhœa or whites as it is commonly called, which no man can tell from genuine gonorrhœa, or clap. Hence a man, if he loves his wife, will be very cautious how he casts an insinuation against her character, which is of more value to her than life itself.

Treatment.—The following wash may be used for the first week:

Sulphate of zinc, 4 grains.

Sulphate of morphia, 4 grains.

Hydrochlorate of cocaine, 1 grain.

Fluid hydrastis (colorless), 4 drachms.

Rose water, 3½ ounces.

Mix. Inject four or five times a day. Keep the injection in contact with the inflamed mucus surfaces for a few moments each time.

After the acute symptoms have subsided, use the following stronger wash:

Sulphate of zinc, 20 grains.

Sulphate of morphia, 4 grains.

Hydrochlorate of cocaine, 1 grain.

Fluid hydrastis (colorless), 1 ounce.

Rose water, 3 ounces.

Mix. Inject thoroughly four or five times a day.

The bowels should be kept open with Seidlitz powders.

The patient may also take the following:

Fl. ex. sandal wood, 2 ounces.

Syrup of sugar, 2 ounces.

Mix, shake. Take a teaspoonful four times a day.

The diet should be light, consisting of vegetables, bread, soups, and but little meat. Coffee and liquors of all kinds should be let alone, and tobacco, if used, must be used lightly. Milk may be used, and tea in moderation.

Where the patient suffers from painful erections, he may take a twenty or thirty grain dose of bromide of potash occasionally, when needed. Bed time is the best time to take it generally, as the erections bother more at night when the bladder gets full, which should always be emptied at once when the patient awakes.

Where the urine burns badly on passing, the patient may take a teaspoonful of bicarbonate of soda in a glass of water three times a day until this symptom disappears.

Where the testicle becomes inflamed the patient should go to bed and support them on pillows and keep cloths over them, which have been wrung out of hot water. Keep this up until the swelling goes down. Cloths wrung out of ice water sometimes work better than hot cloths. The patient should not be worried often by using injections until the swelled testicle is reduced.

Prof. Ashhurst recommends making a small opening into the stone with a knife to relieve swelling and inflammation, after which he keeps the patient in bed a few days, dressing the inflamed organ with cold applications, which course is followed by uniform success according to his statement.

Where the womb becomes infected with the poison, it must be washed out two or three times a day with the same medicines as used in the urethra, only they may be diluted if they cause too much pain. Liquids may be warmed to blood heat before being injected into the womb.

Venereal warts may be clipped off and their base touched with carbolic acid.

ONONISM.—(SELF-ABUSE).

This is practised by many children. They commence about the age of puberty, and are liable to continue the practice, to a greater or less degree, until marriage, some do not even stop then. Some continue the habit until they are ruined, body and mind. Both sexes practice it. It is always very injurious to health. It is the highway to ruin.

Treatment.—The patient should be talked to, and shown its evil consequences. Mothers should watch the child

while it is young, strictly forbidding it to play with its privates, as a habit formed while very young is difficult to break up.

If the patient will not stop by any other means, the parts should be painted with some irritant while they are asleep, so as to make them sore. Dr. John M. Scudder recommends painting the parts with strong vinegar or tincture of cantharides. Only a small part of the surface need be kept sore. This will effectually break up the habit, if persevered in.

PILES, OR HEMORRHOIDS.

Piles consist of small tumors, varying in size, in and about the rectum. Those which form inside of the rectum are called *blind* piles. Those outside the rectum are known as external piles. They are, at times, very painful, and at times they burn and itch.

Treatment.—The bowels should be kept regular with the laxative syrup mentioned under general formula, but where the patient is bilious and the liver deranged, the liver syrup, mentioned under general formula, may be used instead.

Where the piles are inflamed, they may be bathed in cold water two or three times a day. Where there is burning internally small quantities of cold water may be occasionally injected into the rectum.

As a local application rectified oil of amber may be rubbed on the piles two or three times a day, where the piles are internal:

Rectified oil of amber, 1 drachm.

Cocoa butter, $1\frac{1}{2}$ ounces.

Mix, triturate, make fourteen suppositories. Use one in the rectum morning and evening, or the following is good:

Tanin, 14 grains.

Acetate of lead, 16 grains.

Carbonate of lead, 25 grains.

Extract of stramonium, 30 grains.

Cocoa butter, 6 ounces.

Make into 45 suppositories. Use one in the rectum two or three times a day.

The following may be used for the extirpation of external piles, where the oil of amber fails.

Carbolic acid, 2 drachms.

Olive oil, 4 drachms.

Mix, and inject five or six drops into the center of each pile with a hypodermic syringe.

This will speedily remove the pile tumor. Only one or two tumors should be treated at a time, as quite extensive sloughing, followed by ulceration sometimes follows the use of this treatment. Wait until the injected tumor heals up before injecting another tumor. Where much inflammation occurs after the injection use cold water applications, or cloths dipped in water that is made quite astringent by acetate of lead, four or five grains to the ounce of water will do. The parts may be washed with water, to which is added two drachms of colorless fluid hydrastis, three or four times a day. After the swelling has gone down apply the following salve until the ulceration is healed:

Carbolic acid, 7 drops.

Cosmoline, 1 ounce.

Mix, and apply on a rag.

Ponds' extract of hamamelis is also a good thing to bathe the parts in.

For itching piles bathe the parts in cold water and use the following ointment:

Chloride of sodium, 1 drachm.

Morphine, 1 grain.

Cosmoline, 1 ounce.

Mix, triturate. Rub on two or three times a day. In extreme cases, two grains hydrochlorate of cocaine may be added to the above ointment.

FISSURE OF THE RECTUM.

This consists of a fissure through the skin, extending from the rectum in any direction for one or two inches. This is sometimes very painful, and may last for a long time, giving the patient great annoyance.

Treatment.—Keep the bowels regular with the laxative syrup, mentioned under general formula.

Apply pure carbolic acid on the point of a sharp stick to the raw surface of the fissure, then use the following ointment:

Carbolic acid, 7 drops.

Cosmoline, 1 ounce.

Mix. Keep on the fissure until it heals. If the fissure does not heal properly, the pure carbolic acid may be again applied in a week or ten days.

Sedentary habits and violent cathartics should be avoided.

PLEURISY (ACUTE).

Inflammation of the pleura is generally ushered in by a chill, followed by more or less fever. It is attended by sharp stitching pains in some part of the breast, by a short irritable cough, and shortness of breath. The taking of a long breath is liable to cause a sharp pain in the diseased membrane.

After the disease has lasted for some time, effusion of fluid into the pleural sac takes place which may be so great as to cause the ribs to bulge outward.

Pressure between the ribs causes pain, and the patient lies upon the sound side, but later in the disease when much effusion has taken place, he lies upon the back or sound side or midway between the back and the affected side.

Treatment.—When the patient is first taken, if a bath tub is convenient, place the patient in a bath of water as hot as he can endure it for ten or fifteen minutes until he is in a thorough sweat, then rub him until he is dry, and put him in a warm bed. The vapor or hot air bath will do as well, if not better than the hot water bath. The room should be kept warm enough for the patient to sweat.

Mustard draughts should be thoroughly applied over the inflamed pleura. Keep the surface red by their use but do not leave them on long enough to blister.

Internally an emetic, of the emetic powder, mentioned under general formula, may be given with the greatest benefit. Use the composition tea freely during the emetic.

After the emetic, move the bowels by an injection or by repeated doses of seidlitz powders until they are thoroughly moved, and keep them loose.

The patient may use the following:

Quinia Sulph., 30 grains.

Camphorated dover powder, 50 grains.

Mix, triturate, make ten powders. Take a powder once in five hours:

Where there is much fever, use the fever drops mentioned under general formula.

If the disease continues, the emetic and hot bath or vapor bath may be repeated as often as necessary to control the active symptoms.

Never let the patient get chilled. Keep hot bricks to the feet and side where necessary.

Where effusion takes place, and the side bulges out, it may be necessary to tap the side and draw off the effusion.

LUNG FEVER (PNEUMONIA.)

In this fever the parenchyma of the lung is inflamed. The inflammation may extend to a part or all of one lung, or a part or all of both lungs. When one lung only is inflamed, it is called *single*, and when both are inflamed it is called *double* pneumonia.

This disease is very fatal in the very old and in the very young. It is caused by a cold settling on the lungs, which leads to congestion, followed by inflammation.

There are three stages to pneumonia: 1. the stage of congestion; 2, the stage of inflammation; 3, the stage of suppuration.

Symptoms.—The disease generally commences with a chill of greater or less severity, which may in hard attacks last from one to two hours. The chill is followed by high fever and a bounding pulse, pain in the breast, cough, shortness of breath, and in bad cases the patient soon begins to expectorate sputæ of the color of plum juice, which consists of purulent looking mucus mixed with blood. The blood mixed with the sputæ is very characteristic of this

disease and shows that the congestion is breaking down the capillaries of the lungs.

The cough is short and harsh, dry and frequent, and is perfectly characteristic.

The breathing of the patient is oppressed. The patient feels as if there was a weight upon his chest. The patient is urgent in his demands for more air. He wants the doors and windows thrown open, and would lie in a draught if permitted to do so.

The fever in some cases soon becomes very intense and is accompanied at times by delirium. During bad attacks the patient is apt to be flighty for a number of days.

There is dulness on percussion and a want of the respiratory murmur over the congested surface. In this way the limits of the affected area in each lung may be quite accurately marked out.

Where the lung hepatizes or becomes solid at any point, no sound of respiration can be heard at that point, even by laying the ear close against it. Tapping over the hepatized spot gives a perfectly dead sound, like tapping on a solid piece of meat. All degrees of obstruction, from the slightest congestion to hepatization, may, and should, be carefully watched in this way.

In typhoid pneumonia we have the symptoms of typhoid fever added to the congestion and inflammation of the lungs.

During the later stages of the disease the patient expectorates very freely of sputae resembling bloody pus.

An amelioration of all the symptoms by the fifth or sixth day is favorable, but an aggravation of the symptoms at this time must be looked upon as a matter of grave anxiety. The patient may, however, live through attacks extending through several weeks of time. By the end of the second or at the furthest the third week the case has generally shown what the outcome will be, either in death or recovery.

Treatment.—Where the constitution is vigorous, a thorough relaxing emetic should be given as soon as the

disease shows itself. Lobelia is incomparably the best agent to use for this purpose.

To save repetition I refer the reader to the method of giving an emetic given under acute inflammation of the liver. The patient should drink very freely of the composition tea while using the emetic, and he may also drink of this afterwards as occasion requires to keep the body in a warm sweat.

The vapor or hot air bath is also an excellent remedy in the early stages of this disease.

After the emetic put the patient upon the following fever drops:

Tinct. of veratrum viride, 30 drops.

Mother tinct. of aconite, 2 drops.

Water, 4 ounces.

Mix. Dose: a teaspoonful once an hour when there is fever. Also give the following to assist in reducing the fever:

Camphorated dover powder, 80 grains.

Tartarized antimony, 1 grain.

Mix, triturate, make 20 powders. Give a powder once in three or four hours while the fever keeps up.

Relieve the bowels every day by injecting one or two quarts of warm water. This only need be done once a day. Rub the following over the lungs:

Saturated tinct. of camphor, 1 ounce.

Oil turpentine, 1 ounce.

Sweet oil, 2 ounces.

Mix. Rub over the affected portion of the lungs once in three hours. Over this place a large *hot* mush poultice, which is spread on one piece of linen or muslin and covered with another. Cover the poultice well with warm flannels and keep in the heat. This poultice must never be allowed to get cold. Change it every three hours day and night. Don't expose and chill the patient when you are changing poultices.

Keep the temperature of the patient's room at not less than 75° Fahrenheit night and day, so that he can sweat. Have the room well ventilated, but if it be winter, in order

to keep the room sufficiently warm a strong fire must be kept up day and night.

If the patient's extremities get cool, warm bricks etc., must be kept to them. *Don't let the patient take fresh cold.* His surface may be sponged under the bed clothes daily, with warm salt or soda water. The bed clothes must not be allowed to become filthy. His undergarments must be changed when they become foul. Later in the disease, as the disease is giving way, exhaustive perspiration is apt to set in. This must be met by tonics. The following will answer:

Sulphate of quinia, 1 drachm.

Camphorated dover powder, 1 drachm.

Mix, triturate. Make fifteen powders. Take one powder once in four or five hours as needed, to control the excess of perspiration.

After the disease is well advanced, the patient may have difficulty in expectorating the discharges from the lungs. To aid this he may use the following:

Carbonate of ammonia, 3 drachms.

Syrup of senega, 1 ounce.

Syrup of squills, 1 ounce.

Syrup of ipecac, 1 ounce.

Syrup of wild cherry, 1 ounce.

Mix. Dose: a teaspoonful once in two or three hours. Three or four drops of tincture of belladonna added to each dose of the above is valuable where there is much rattling in the chest. Bromide of potash in thirty-grain doses, once in three or four hours, is good to control active delirium. The patient may keep the bowels sufficiently active by an occasional dose of sprudel salts powder. Where the patient shows signs of collapse, the quinine and dover powder, as prepared above, may be given, also liberal doses of hot whisky until the signs of collapse have passed away.

The patient's strength must be supported throughout the attack by liberal allowances of rich, lean beef tea, sweet milk, mutton broth, chicken broth, etc. A dose of pepsin or wine of pepsin may be taken after the patient takes nourishment.

Solid food should not be taken during the continuance of the fever.

Mulled buttermilk or whey may be used at any time by the patient. Cider is sometimes very acceptable, as well as beneficial to the patient. The way in which it agrees with the patient's stomach must govern the amount taken.

It is not expected that the foregoing remarks and suggestions will enable the average person to successfully manage a serious case of pneumonia without the aid of a physician; but it is sincerely hoped that they may be of some value in assisting both doctor and patient in the management of this terrible disease. They will, undoubtedly, be found to be reliable.

COMMON COLD.

A cold is caused by the surface becoming chilled to such an extent as to impair the circulation of the blood in the extremities of the system, causing the blood to recede to internal centers.

The effects of taking cold are often far reaching and disastrous in their results.

Nearly every organ of the body is liable to serious congestion and inflammation from this cause. Hence the utter carelessness with which the average person neglects to attend to a cold is highly censurable, and in myriads of cases leads to fatal results. A slight cold neglected is liable to lead to a serious one.

The *longer* and the *more pronounced* has been the patient's exposure, the more violent will be the cold which follows. Taking cold by wearing damp clothes, or by sleeping in damp, illy ventilated apartments, under insufficient bed covers are among the worst ways in which a person can take cold.

I hope that all of my readers will study the principles of hygiene laid down in the fore part of this work so that they will understand how to avoid taking cold, and in fact how to maintain their health in every way.

Symptoms.—The more common symptoms of a cold are chilliness of the surface, running of the nose, sneezing,

slight soreness of the throat, constipation or diarrhœa. More or less fever follows the chill, which may last for several days. Where the cold settles upon the windpipe or bronchial tubes, there is more or less cough. The discharge, which is at first thin and watery, soon becomes thicker and more of a yellow color. There is often a feeling of soreness through the muscles and body, as though the patient had been pounded. A slight headache is common. After the fever abates the patient is apt to feel languid and out of tone. The eyes are apt to water and smart. The appetite is liable to be weak and the stomach somewhat deranged for a few days.

Treatment.—As soon as the patient discovers that he has taken cold, he should at once take measures to re-establish the circulation of the blood in the skin and in the extremities. One of the most powerful and speedy methods of doing this is for the patient to plunge into a bath tub of water as hot as he can endure it, and remain in this till his surface is bathed in perspiration. Where the patient has no bath tub, he may take a vapor or a spirit bath. These are perhaps still more powerful than the hot water bath. After the bath, the patient should be rubbed dry and warmly clothed, or put to bed. He should avoid exposure till the cold is broken up. Before going into the bath he may take a hot whisky toddy or a good drink of hot composition tea.

After the bath he may use the tonic pills, mentioned under general formula in this work, and keep up their use until the cold is cured. He may keep his bowels open with seidlitz powders.

The above will soon complete the cure.

INFLUENZA, OR CATARRHAL FEVER.

This is a continued fever of an epidemic nature, and is owing to a *specific contagious principle* and not to taking cold as was formerly supposed.

It occurs at all times of the year and in all kinds of weather, and in widely spread epidemics. It is freely contagious. It is quite a fatal disease in the very young and

in the very old, as well as in persons suffering from severe lung trouble, heart disease or Bright's disease.

The epidemic influence of influenza may last from one to six weeks in a locality and suddenly disappear, it crosses oceans and continents regardless of the lines of travel. It floats in the air. One author thinks that he has discovered the germ which causes it; but this is not generally accepted as yet.

Symptoms.—The first symptom generally consists of sneezing. This may be quite annoying. The patient may be feeling comfortable and warm or even sitting by the fire in a warm room, when he will commence to sneeze violently. The nose, throat and eyes soon become affected the same as in a common cold. Soon the patient may have pains or a feeling of soreness through the muscles, and a deep-seated pain soon appears at the root of the nose and in the eyes and over the eyes, and sometimes in the back of the head. The brain feels *sore* on a jarring motion. More or less fever soon makes its appearance. Sometimes the fever becomes very high, running up to 105° or 106° Fahrenheit.

Great general weakness and debility, out of all proportion to the intensity of the fever, is experienced by the patient.

The patient becomes very nervous and weak. His appetite fails, and his bowels are generally either loose or very sensitive to the action of cathartic medicines. A harassing, dry-sounding cough attends the disease. The throat is generally sore. More or less pain is experienced through the breast. The patient is chilly, or easily chilled. Sometimes the disease commences with a chill. The surface is apt to be moist with sweat. Sometimes there is bleeding of the nose. Loss of smell and taste may occur. The patient is very much depressed in proportion to the amount of fever, and he is restless and sleeps poorly. Thirst is urgent. Rose-colored eruptions may appear; they generally show about the face, neck or breast. The bowels may bloat somewhat, and become tender on pressure, the

pulse is generally soft and compressible, and moderately fast, vomiting is common, etc.

Pneumonia sometimes attacks the lungs in grave cases. Laryngitis and chronic bronchitis may follow the attack.

Bright's disease is aggravated by influenza.

Treatment.—The room must be kept warm. The temperature should be kept up to 75° or 80° fahrenheit.

The bed clothes must be sufficient to keep the patient from chilling. The patient must be well nourished throughout the attack. Only liquid foods must be used during the fever and these should consist of beef essence, milk, mutton broth, chicken broth, oyster soup, etc. Animal broths and milk are the best. The patient should be confined to his bed or lie on a sofa.

Where the fever is very high it may be reduced by cold water bandages to the body.

The fever drops, under General Formula, may be used to control excess of fever. Bromide of potash in twenty or thirty grain doses, once in two hours, may be used to control delirium when there is high fever.

Where the fever is very high a light emetic, of the emetic powder, mentioned under general formula, may be used every day to cleanse the stomach of mucus and other impurities, so that other medicines and food can have their proper effect.

Where the bowels are constipated, they may be moved by Seidlitz powders, rhubarb or castor oil. When the fever is not high, the patient may take the following powder:

Quinia sulphate, 30 grains.

Camphorated Dovers powder, 45 grains.

Mix, triturate and make into fifteen powders. Dose: One powder once in three or four hours.

Where there is much depression, a half ounce of whisky may be made into a hot toddy and given half way between the above powders, or one or two ounces of port wine may be used in place of the whisky. The patient's body may be sponged daily, with warm water. A teaspoonful of soda or salt may be added to the water. When the fever is over, the patient may take three or four doses a day, of the tonic

pills mentioned under General Formula. These may be used for several days while the patient continues to be weak. Where the lungs become badly involved, the same local applications may be made over them as recommended in pneumonia. The patient convalesces slowly, generally requiring one or two weeks before he is himself again. Solid food must be returned to with caution.

CONSUMPTION OR PHTHISIS PULMORALS.

This is one of the most fatal diseases known to man. Sometimes it is liable to run through many individuals of the same family or of the same parent stem, hence it is classed among hereditary diseases. It is also contagious to a certain extent. This is more apt to be the case where persons live in intimate relations with the consumptive. A husband or wife may take it one from the other if they sleep in the same room or bed, and thus it may be transferred to the children.

It is now claimed by high authority that a living vegetable germ, called bacillus tuberculosis, is the cause of the disease. This germ multiplies in the blood and is said to be the primary cause of tubercle in the lungs.

Symptoms.—A gradual loss of flesh without any appreciable cause, is among the earliest symptoms of the disease. In connection with the loss of flesh is a gradually increasing constipation of the bowels. After a time the appetite begins to fail, and the stomach to become more or less dyspeptic. A feeling of general languor now begins to pervade the system, and the patient is more or less irritable. Slight headache becomes common, and the circulation becomes so impaired, and the volume of the blood so reduced, that the temperature of the extremities is reduced below the rest of the body.

This condition of loss of flesh and loss of strength may exist for one or two years before the patient's attention is called to his lungs.

Occasional pains at the apex or base of the lungs or shortness of breath from active exercise is generally the first symptom which calls the patient's attention to his

lungs. Slight dullness on percussion or absence of the proper respiratory murmur may now be discovered, generally at the base or the apex of one or both lungs.

The pulse now becomes increased in frequency, generally ranging about ninety beats to the minute. The pulse is regular and feels hard and firm under the finger.

The patient now begins to have a slight hacking cough, as if to clear the throat. This hacking cough may exist from the commencement of the disease. More or less fever begins to appear in the evening and the patient is wakeful in the fore part of the night. Later, all the symptoms become aggravated and the patient may occasionally expectorate mucus tinged with blood.

When tubercles, which are in the lungs, inflame and begin to break down, more or less yellowish or yellowish green pus, streaked with blood, is expectorated, and sometimes chunks which consist of small pieces of tubercles are coughed up. Serious hemorrhages may now begin to show themselves.

In the evening the fever gets higher, and the patient cannot sleep until late in the night. After the fever passes off the surface is bathed in perspiration—night sweats—which become more profuse toward the end of the disease.

The bowels now become loose. Very troublesome diarrhoea is apt to set in, and the cough becomes very obstinate. The lungs are apt to become very painful and large amounts of matter, and sometimes blood, are coughed up. The breath is very offensive, the eyes are bright and large, the cheeks are flushed with hectic fever, the tongue is frequently almost denuded of epithelium, the stomach becomes so weak that the food is frequently thrown up, pains across the kidneys are apt to be severe and albumen is often present in the urine. The liver often becomes so deranged that the skin and whites of the eyes become very jaundiced and yellow, the emaciation becomes extreme, and the patient thoroughly exhausted and emaciated, dies.

During the latter part of the disease the pulse gradually rises, as a rule to from 110 to 120 beats per minute.

The shortness of breath becomes extreme and very slight exertion causes complete exhaustion.

One singular phenomenon surrounding this disease is that the patient rarely believes that he has consumption, and confidently expects recovery until the last moment.

A good many cases of consumption have recovered of themselves, and others under proper treatment, hence hope should not be given up when it is found that the disease exists.

Treatment.—Proper hygiene is of the utmost importance in the treatment of this disease. Every means should be used to promote the patient's strength. As soon as the first symptoms appear, I think that one of the best possible things for the patient to do is to put himself or herself, under the care of a regular trainer in a gymnasium and take a regular course of training with Indian clubs, dumb bells, cross bars, lifting, etc. You may say that this is impracticable for the average patient. My answer is that I am sorry that such is the case. I know of no means short of this that will answer the purpose. This is only practicable in the early stages of the disease. The patient must begin cautiously upon this system of exercise and gradually endeavor to work himself up to an athlete. This takes time and it takes money; but it is the best advice I can give you. To do this it may be that the patient may have to go to some city. This of course would be a disadvantage, but he could board in the outskirts of the city, where pure air could be had in abundance. If this system of exercise could be had in high altitudes, it would be better for the patient.

This systematic exercise cautiously employed under a *skilled trainer*, is undoubtedly one of the best, if not the best, methods in breaking up consumption in its very first stages. The system becomes so strong that it overcomes the cause of the disease by throwing it off.

Some remarkable cures of this kind have been reported.

Residence in a high and dry atmosphere, not less than six or eight thousand feet above the sea, is undoubtedly one

of the best possible things for a consumptive in the first stage.

The extreme rarity of the air in such locations is such that in order to inhale a sufficient amount to live on the lungs are compelled to expand to their utmost limit.

The patient should not go too high up to commence on, but he should commence on lower altitudes and gradually work up higher. A residence in high altitudes should be maintained until the health is thoroughly recovered.

In whatever location the patient is situated, he must have plenty of out door exercise and plenty of sunshine and fresh air. He should carefully read the different articles on hygiene, which I have laid down in the first part of this work, and follow their teachings.

A highly nutritious diet is of great importance. The patient should have all of the fresh meats which he wants. Beef and mutton are very good, and all kinds of fowl, game, fish, and shell fish may be used. Pork should be avoided.

Cod liver oil is not only one of the best foods in the world for the consumptive, but is also an excellent medicine. The patient should take it after each meal, governing the size of the dose by his capacity to digest it. From a dessertspoonful to half an ounce may be used at a time. Where it disagrees, ten or fifteen drops of sulphuric ether may be taken in a little water one half hour after the oil is swallowed. The patient must not have the ether near a fire or a flame, as it is very explosive.

Alcoholic liquors, such as brandy, whisky, wine, beer, ale, and the various malt liquors, are excellent in some cases. The patient can tell by trial which best agrees with him.

They should be used about meal time. Whisky, brandy, etc., can be used to great advantage in some cases, in the form of an egg-nog, before meals. Not enough of any kind of liquor should be used to produce intoxication or a feeling of weariness after the effect of the stimulant has passed off.

Where liquor is properly used in this disease the patient will have but little trouble to stop its use after recovery.

A dose of the wine of pepsin, mentioned under General

Formula, will be found an excellent aid to digestion. It should be taken before or after meals.

In addition to the above treatment, the patient may take one or two teaspoonfuls, three times a day, of the compound syrup of hypophosphites of lime and soda. (Churchill's Formula). When the patient seems to need a tonic, he may take a teaspoonful of elixir of calisaya, iron and strychnia, three or four times a day, or the following may be used :

Tincture chloride of iron, 1 ounce. .

Glycerin, 3 ounces.

Mix, and take one teaspoonful three or four times a day.

This prescription may also be used for the cough.

I knew of one lady who undoubtedly had consumption in the second stage and whose mother had died with it. She used the following:

Tinct. chloride of iron, 2 ounces.

Glycerine, 2 ounces.

Mix. She took one teaspoonful at a dose whenever she had a severe coughing fit and repeated the dose every half hour until the cough was allayed. I know that such doses of iron are outside of all rules, and I do not say that I can always recommend it, but I do say that this was the only medicine which this lady took and she got well on the treatment after all had given her case up as hopeless. She was the wife of a physician.

The following is good to allay cough but should only be used to allay the cough for the time being, as its effects are but temporary:

Tinct. of opium and camphor, 2 ounces.

Syrup of tolu, 1 ounce.

Syrup of squills, 1 ounce.

Syrup of ipecac, 1 ounce.

Syrup of senega, 1 ounce.

Mix. Dose: one teaspoonful every twenty or thirty minutes until the cough is allayed.

For hemorrhage; use the oil of *erigeron canadense* in four to six drop doses and repeat three or four times a day where necessary.

Teaspoonful doses of fluid extract of ergot, repeated in serious hemorrhage, once in 30 minutes until two or three doses have been taken, will be found an excellent remedy. Where it is necessary to stop the hemorrhage twenty drops of laudanum may be given with the ergot in extreme cases, but the laudanum should not be repeated unless necessary for collapse.

Teaspoonful doses of common salt are sometimes valuable in checking hemorrhage.

I prefer the erigeron, however, as it is a very valuable agent to heal and warm up the lungs. Two or three drops of oil of erigeron on sugar may be taken with advantage three or four times a day where the lungs are sore.

Mustard drafts or the croton oil liniment, mentioned under general formula, may be used with much benefit to control pain in the lungs. A belcapsic plaster is also excellent for the same purpose, and this plaster also exerts a favorable influence in controlling the irritability and force of the pulse.

The fever drops, mentioned under general formula, may be used to control fever. Antipyrin has also been highly lauded of late for this purpose, but I have had no experience with it in consumption.

Night sweats may be controlled by giving one-eightieth to one-hundreth of a grain of sulphate of atropia, at bedtime, or the tonic pills, under general formula, may be used.

Diarrhœa is sometimes favorably controlled by giving 12 or 15 grain doses of subnitrate of bismuth with one grain of opium at a dose three or four times a day. The oil of erigeron as heretofore mentioned, often acts well to control diarrhœa. Its effect is more permanent than opium in arresting looseness of the bowels.

Hiccough can generally be checked by hypodermic injections of one tenth grain of morphia.

SPASMODIC ASTHMA, OR PHTISIC.

Spasmodic asthma is a disease which is accompanied by great difficulty of breathing. It occurs in distinct par-

oxysms, lasting from a few minutes to days at a time. The variations of the weather and changes of climate and locality have much to do in producing the attacks. Taking cold often brings on an attack.

Asthma often attends the course of organic diseases of the lungs and heart, or bronchial tubes.

Inhaling dust and the fumes of certain drugs and chemicals also acts as an exciting cause.

Derangement of the stomach, liver, bowels, and taking cold are all causes.

During the attack there is a spasmodic stricture of the circular fibers of the bronchial tubes, which so narrows their capacity as to interfere with the free passage of air through the lungs.

Symptoms.—The attack generally comes on very suddenly, more often at night. The patient may awaken from sleep gasping for breath. He at once assumes a sitting position, and calls for the windows and the doors to be opened—anything to give him air, for he feels as though he was smothering. His face at first becomes red, and the veins stand out, and his surface is apt to become bathed in sweat. His efforts to breathe are often distressing to behold. The face, in extreme cases, becomes of a purple hue. The attack may continue until the patient becomes very much exhausted, and the sleep which he so much needs, can only be had after the paroxysm has spent its force. The patient may be compelled to be propped up by pillows, and sleep as best he can between the attacks. The cough is often extremely harrassing, and a white tenacious phlegm is coughed up in *humid* asthma, but in *dry* asthma nothing of any consequence is coughed up.

Sometimes the patient will rush to the door or window gasping for breath, and remain there for hours, exposed to the chilling winds of night, enjoying, however, a singular immunity from taking cold.

By placing the ear to the lungs, the air can be heard passing through the constricted air tubes like a thousand minute whistles. It is difficult for the patient to speak,

owing to the shortness of breath and the stuffed up condition of the lungs.

During the attack the patient passes large quantities of pale urine, but as the attack passes off the urine becomes more scanty and high colored.

After the attack the patient may have a bruised or sore feeling through the muscles.

This distressing complaint may last from childhood to old age. As a rule the mucus membrane of the bronchial tubes becomes thick. Bronchial catarrh sets in and catarrhal consumption may sooner or later carry off the patient. The right cavity of the heart is also apt to become dilated.

Ruptures of small blood vessels in the brain may cause apoplexy. This may be caused by the straining and consequent rush of blood to the head.

In the interim between the attacks the patient's health may be good, or he may have more or less trouble with the stomach, liver, bowels, etc.

The recession of a rash or the suppression of an accustomed discharge, as from an old ulcer, the menses, etc., may also produce an attack.

Treatment.—The first step looking toward a permanent cure must be the removal of all causes so far as they can be discovered.

The patient must follow correct hygienic rules, such as the use of proper food in proper quantity; take plenty of fresh air out of doors; bathe regularly, avoid dampness and all known exciting causes, among which we must not fail to mention late and hearty suppers of rich food.

Where any organ or organs are deranged, their diseases must be corrected.

Removal to a high altitude is of great importance, often curing the patient without the use of medicine. Denver, U. S. A., is a good location for asthmatics, thousands of them resorting thither for that purpose. A high altitude, where the air is pure and dry, is incomparably better than all medicines for this disease.

The best agents which have thus far been discovered for the relief of the paroxysms of asthma are those which

have been inhaled in the form of smoke. A convenient powder for the purposes of inhalation may be made, as follows :

Pulverized lobelia seed, 1 ounce.

Pulverized stramonium leaves, 1 ounce.

Pulverized black tea, 1 ounce.

Pulverized cubebs, 2 ounces.

Pulverized Chlorate of potash, 1 ounce.

Mix all thoroughly together, then dissolve one ounce of saltpetre in one ounce of boiling distilled water. Pour this over the above powder and mix thoroughly, then dry.

When an attack of asthma comes, burn a half teaspoonful of the above powder, allowing the patient to inhale the smoke. This can best be done by making a funnel out of a piece of paper and breathing the smoke through that. This remedy will give relief in a few moments, and by using it persistently from six to nine months, sometimes performs wonderful cures. No asthmatic person should fail to try it. It is worth a hundred times the price of the book to them.

The bowels may be kept regular with the liver syrup, mentioned under General Formula, and the stomach may be treated by a dose of the wine of pepsin, also there mentioned.

Where the lungs feel sore, the croton oil liniment, mentioned under General Formula may be used over the lungs.

BRONCHITIS.

Bronchitis consists of catarrhal inflammation of the air tubes, viz: the windpipe and bronchial tubes, and sometimes the inflammation extends into the air cells, when it is called capillary bronchitis.

Symptoms.—The disease nearly always starts as a common cold. It is usually known as a cold which goes down the windpipe into the lungs and in a great majority of cases that is precisely what it is. Sometimes, however, the inhalation of irritant gases, such as chlorine, and such powders as ipecac, etc., set up an irritation which ends in inflammation of the air passages.

When it occurs from taking cold, there is sneezing, run-

ning of the nose, slight soreness of the throat, followed by coughing and expectoration of white frothy material or mucus at first, which afterwards becomes thicker and yellowish or greenish, and is sometimes streaked with blood.

There is more or less soreness through the breast, and also some pain. During the act of coughing, which is sometimes distressing and persistent, pain is apt to be felt at the lower end of the breast bone.

There may be considerable oppression in the breast from breathing, and when the disease attacks the *air cells*, this oppression becomes extreme and the breathing very frequent and short,

When the inflammation extends to the cells, the disease is very fatal in children and old people.

Bronchitis sometimes becomes very chronic. Ulcers form along the mucus membranes of the bronchial tubes. The expectorated material becomes very abundant and looks like matter, and may be freely streaked with blood. The patient becomes greatly reduced in flesh, the digestive apparatus becomes deranged and the patient may have by this time swallowed enough of the diseased products coughed up from the lungs, to have imparted the catarrhal condition to the stomach and bowels, in which case we have a serious dyspeptic condition of the stomach accompanied by derangement of the bowels, which may be of a most obstinate character. Constipation, alternating with pain and diarrhœa and possibly a thickening and ulceration of the mucus membrane of the bowels, occurs. Fatal diarrhœa is a possibility in this disease in its later stages, where the contagium of the disease has been transmitted by the swallowing of purulent expectoration.

In the later stage of chronic bronchitis the bronchial tubes are apt to become dilated and asthmatic breathing may become a prominent symptom, and owing to the gradual impingement upon the circulation of the blood in the lungs as a result of the hyperemia arising from inflammation, the heart may become seriously affected.

Dilatation of the right cavity, accompanied by compen-

satory hypertrophy, or thinning of its walls where anemia becomes pronounced, as well as disease of the tricuspid and coronary valves, are liable to occur.

While the initial fever generally subsides after the first onset of the disease, fever is apt to return more or less during the disease and it may even become hectic in character in the later stages of chronic bronchitis, when it is always attended by exhausting night sweats.

In the later stages, where the case terminates unfavorably, the purulent expectoration from the lungs becomes abundant, dangerous hemorrhages may occur, night sweats become exhausting, and all the complications which I have noticed become aggravated, the pulse becomes rapid, dropsy attacks the lower extremities, and the patient dies either from hemorrhage of the lungs or general exhaustion of the vital forces of the system.

Treatment.—In the first stage the disease may be treated in accordance with the principles which I have laid down for the treatment of common cold. The reader may look that up. In addition to that, fifteen or twenty drops of oil of turpentine may be added to each pint of hot water and towels wrung out of this be placed over the throat and chest and be frequently renewed, until the inflammation is all removed from the lungs. Hot baths must be used every day. Where the case has become chronic before treatment is commenced the croton oil liniment, mentioned under General Formula, should be used over the breast. The tonic pill may be used, and the bowels kept regular by the liver syrup. Warm clothes should be worn, the stomach regulated by the wine of pepsin, mentioned under General Formula, and exposure avoided. Where fever is high, use the fever drops, under General Formula, and treat all complications such as diarrhoea, etc., according to the rules laid down under their proper headings in this work.

Where there is hemorrhage from the lungs. give four or five drops of oil of erigeron on a little sugar four times a day.

Where there is much emaciation, give a desert-spoonful of compound syrup of hypophosphites of lime and

soda three times a day after meals. The patient should have a nourishing diet of milk, fresh beef, mutton, game, etc. Pork is not good.

Where there is painful cough the following may be given:

Tinct. of opium and camphor, 1 ounce.

Syrup of ipecac, 1 ounce.

Syrup of tolué, 1 ounce.

Syrup of squills, 1 ounce.

Mix, and take one teaspoonful once in three or four hours, as needed.

QUINSY OR TONSILLITIS.

This disease is characterized by soreness of the throat, which is located chiefly in the tonsils.

Symptoms.—A chill of greater or less severity may usher in the attack, which is followed by more or less fever. Sometimes the fever is of a high grade with a flushed surface and a bounding pulse. The throat soon becomes stiff and sore and aches. The voice becomes hoarse and may be reduced to a whisper and swallowing becomes difficult and painful, the tonsils, one or both soon begin to inflame and are covered with loose patches of white mucus. The inflammation of the tonsil may progress until within four or five days to a week an abscess is formed within one or both tonsils. Sometimes, however, the inflammation subsides without producing an abscess.

The formation of pus in the tonsil is generally marked by chilly sensations and throbbing in the affected tonsil. The general fever is now apt to abate, and all the symptoms are modified.

Treatment.—As soon as the disease shows itself, a light emetic, of the emetic powder, mentioned under General Formula, should be given. After the emetic, put the patient upon the fever drops, mentioned under General Formula, also give a seidlitz powder once an hour, until the patient has a thorough operation of the bowels.

Where the fever is high, cloths wrung out of cold water and placed around the throat, are an excellent measure.

Where there is but little fever I prefer mustard draughts over the throat. A general vapor, or spirit bath, is an excellent measure where needed.

If matter forms in either tonsil, it should be evacuated with a scalpel, great care being taken not to wound the internal carotid artery, which lies close at hand.

The disease generally abates at once, as soon as the pus is let out.

CHRONIC ENLARGEMENT OF THE TONSILS.

Many children, as well as some adults, suffer from chronic congestion and hypertrophy of one or both tonsils, which may occasionally take on inflammation and be the cause of an attack of quinsy. This enlargement also interferes with the voice, with breathing, and with swallowing, and sometimes causes the patient to snore frightfully during sleep, and frequently occasions fits of coughing which may cause the child to throw up its food.

Treatment.—The enlargement frequently disappears when the child becomes of age.

The only treatment that is of any avail is the knife. An instrument called a tonsillitome, made especially for the purpose, is the safest instrument to use in removing them. The operation is safe and causes but little pain or inconvenience, as the enlargement possesses but a slight degree of sensibility.

No after results of a disagreeable character need be feared from a removal of enlarged tonsils, on the contrary, it is often impossible to remove long standing catarrh from the throat until these morbid enlargements are removed.

CHRONIC NASAL CATARRH.

This is quite a prevalent disease and is apt to be very chronic in its course.

Symptoms.—This disease consists of congestion with more or less inflammation of the mucus membranes of the nasal cavity. Ulcers are apt to form along the course of the mucus membrane, which scab over and occasionally

shed the scabs, and matter is formed and secreted at the site of the ulcer and discharged by the nose.

The discharge may or may not be offensive, depending upon the malignancy of the poison secreted.

Sometimes the nasal bones become affected and gradually decay, causing a horrid odor of the breath. Where the bones become affected the disease is generally called *ozena*. This last condition is generally caused either by syphilis, scrofula, lupus or cancer.

Where bones of the nose are decaying there is often but little discharge from the nose.

There is generally more or less pain in the nose and forehead in catarrh of the nose.

The dripping of the diseased secretions from the nose down the throat, is liable to be the means of the disease extending down the windpipe or into the stomach, and set up catarrhal inflammation of these parts.

The senses of smell and taste may be impaired or entirely lost.

Sometimes the bones of the nose decay so that the nose flattens down to a level with the face, and the inflammation may extend up the eustachian tubes into the ear and destroy the hearing.

Treatment.—The patient should observe all the rules of hygiene as laid down in the fore part of this work. Special attention must be paid to proper clothing, proper food, bathing and pure air. Removing to a high altitude—five or six thousand feet above the sea level, where the air is pure and dry, often cures the disease without the use of medicine. Where the catarrh is mild the following solution may be used from a spray atomizer:

Fluid hydrastis (colorless), 1 ounce.

Bromo chloralum, 1 ounce.

Sulphate of zinc, 30 grains.

Glycerine, 1 ounce.

Rain or distilled water, 5 ounces.

Mix, and spray the inside of the nose thoroughly three times a day.

The above solution should be used in every form of

catarrh where there is a discharge, and it may be thoroughly used on dry ulcers in the nose, as it stops foul odors, arrests discharges, and causes ulcers to heal. Its use should be persisted in until the catarrh is cured.

The above solution can be improved in some cases by adding 20 grains of carbolic acid.

Where the nostrils are plugged up with scabs, matter or mucus, they should be washed by injecting into their cavity with a small syringe, the following solution before using the spray:

Common salt, $\frac{1}{2}$ drachm.

Warm water, 1 pint.

Mix, and inject with a small syringe and thoroughly wash out the nasal cavity.

Where the system is out of order, it must be treated on general principles, according to the disease which affects it, whether it be scrofula, syphilis, or disease of the blood or general system.

However, I will hazard a few suggestions as to general treatment. This treatment will be found especially applicable where the bones of the nose are affected.

The bowels may be kept regular with the liver syrup mentioned under general formula.

A pill of one-twentieth grain of bichloride of mercury may be taken morning and evening, and continued for four or five days each week.

The following may be used when the patient is resting from the mercury:

Iodide of potash, 4 drachms.

Succus alteraus, 4 ounces.

Mix. Dose: a teaspoonful three times a day.

For a tonic, the patient may use a teaspoonful of elixir of calisay iron and strychnia at meal time.

The treatment should be continued according to the demands of the case. Some cases of catarrh will require the care of a specialist.

CATARRH OF THE THROAT.

Sometimes catarrhal inflammation attacks the throat. It is known under the names of chronic catarrhal sore throat, chronic follicular pharyngitis, preachers sore throat, etc., according to the characteristics which it assumes, or the whim of the author, who names it.

As a rule it is apt to be very chronic.

Symptoms.—As a rule, each new accession of cold which the patient takes on, arouses the throat symptoms. There is more or less soreness and aching and sometimes pricking sensations in the throat. The voice becomes hoarse, and prolonged speaking or singing causes the throat to *ache* and feel *tired*. Sometimes the throat is uncomfortably dry, and at other times it may secrete mucus or matter. The throat presents a reddened and congested appearance, and sometimes granulations cover the fauces and pharynx. These granulations are often very persistent, lasting for years. Sometimes public speakers and public singers are compelled to abandon their avocations on account of this disease. The inflammation is apt to extend to the larynx and the vocal cords.

Treatment.—Proper hygiene, such as warm clothing, proper bathing, warm and dry sleeping apartments, plenty of sunshine, etc., are of the highest importance.

Public speaking and singing should be given up until the inflammation is reduced. Locally use the spray, which was recommended under chronic nasal catarrh, thoroughly to the throat three or four times a day until it is *cured*. Where the vocal cords are affected, the spray may be very slightly inhaled so as to barely draw the spray down over the vocal cords which are situated in the larynx. Outside of the throat use the croton oil liniment, mentioned under general formula.

Regulate the system at large the same as was recommended under chronic nasal catarrh.

The above treatment if intelligently used will give prompt satisfaction.

DISEASES OF THE HEART.

The proper diagnosis or recognition of one disease of the heart from another is so obscure, and requires such a thorough knowledge of physiology, pathology and physical signs, as well as clinical experience under a competent medical instructor, that it would be presumption upon the part of an author to furnish a minute description of the various ailments of the heart, in a work for the perusal of the masses, as they would not know, after reading the most carefully written work upon this subject, one disease of the heart from another. Therefore I shall merely offer a few suggestions, which I hope may be of practical value.

PALPITATION OF THE HEART.

This consists of a rapid and tumultuous beating of the heart. The heart seems to flutter, and an oppression or weight is felt in the breast, over the heart, causing difficulty of breathing, anxiety of expression, etc.

Causes.—This may be caused by indigestion, an overloaded stomach, disease of the womb, pregnancy, fright, organic disease of the heart, etc.

Treatment.—Relief can only be temporary where the cause is of such a character that we cannot remove it. Temporary relief may be furnished, however, in a few moments in the majority of cases. The following mixture is good:

Tincture of capsicum, $\frac{1}{2}$ ounce.

Tincture of lobelia. 1 ounce.

Paregoric, 1 ounce.

Syrup of sugar to make 4 ounces.

Mix, and take one teaspoonfull in water once in 15 minutes until relief is obtained.

Where the palpitation is of long standing, the following may be used:

Mother tincture digitalis, 2 drops.

Water, 2 ounces.

Mix, Dose: one teaspoonful once in 2 hours when the patient is awake until the palpitation ceases.

FAINTING OR SYNCOPE.

This is caused by a stoppage of the heart's action, and by a temporary cessation of consciousness and breathing.

It may be caused by fright or other causes.

Treatment.—As soon as a person faints, their head should be caused to hang down and their feet elevated so that the blood will at once run into the brain, this will soon bring the patient to consciousness. However, if cold water is within reach it should be sprinkled in the patient's face. All of the clothes should be at once loosened, and a liberal dose of whiskey or some kind of spirits should at once be poured down the patient's throat. An excellent mixture to be given is the following:

Compound spirits of ether, 1 ounce.

Aromatic spirits of ammonia, 1 ounce.

Tinct. capsicum, 2 drachms.

Mix, and give one teaspoonful in a little water. This may be repeated in five minutes if necessary. One or two doses are all that is usually necessary. The main thing to be done, however, is to allow the patient's head to hang down while the body and legs are elevated.

NEURALGIA OF THE HEART OR ANGINA PECTORIS.

This painful affection sometimes becomes very chronic and is a source of much discomfort as well as danger to the patient. It may come on without any observable cause, or it may result from dyspepsia, pregnancy, diseases of the womb, a gouty diathesis or organic disease of the heart or arteries.

Symptoms.—Pains of greater or less severity come on more or less suddenly about the heart. These pains may be continuous or intermittent, and they sometimes extend to the left shoulder and down the left arm which is sometimes numb to the finger tips.

There may be great oppression of breathing, the patient feeling as if he would die. The pulse may be fast and either strong or feeble.

There is generally more or less wind on the stomach.

The attack may last only for a few minutes or for days at a time.

Where no organic disease of the heart is present a cure by proper measures may be confidently expected.

Treatment.—Where the case is chronic, all the rules of hygiene must be carefully attended to, such as proper exercise, attention to bathing, proper clothing, avoidance of hearty and late suppers, keeping the feet warm, plenty of pure air, sunshine, etc.

As soon as the attack comes on, inject from one-tenth to one-eighth of a grain of morphine into the arm with a hypodermic syringe. Six grains of sulphate of quinia may be given by the mouth at the same time.

The above treatment may be repeated, if necessary, in four or five hours.

Put a mustard draught over the seat of the pain.

In the absence of a hypodermic syringe the following may be used:

Paregoric, 1 ounce.

Compound spts. of ether, 1 ounce.

Tincture of cardamon compound, 1 ounce.

Mix, and give one teaspoonful once in twenty minutes until the pain is relieved.

After the attack is relieved, a bottle of the following may be used to, if possible, prevent a return:

Wine of colchicum seed, 2 ounces.

Fl. ex. cascara sag, 1 ounce.

Fl. ex. prickly ash, 1 ounce.

Iodide of potash, 6 drachms.

Syrup of sugar to make 8 ounces.

Mix, and take one teaspoonful before each meal.

Where the patient is anaemic, give a teaspoonful of elixir of phosphate of iron quinine and strychnine three times a day.

CHRONIC DISEASES OF THE HEART.

There are many diseases of the heart which are very chronic in their nature, and are owing to many causes, but their proper diagnosis, as heretofore remarked, is so

difficult as to be beyond the reach of any but the *most skilled* in the examination of the heart. Therefore, I shall only give some of the symptoms which are common to heart disease in general, and suggest treatment which in many cases will be found just the thing that is needed.

Symptoms.—When the heart is seriously affected some or all of the following symptoms may be occasionally noticed. Among the general symptoms of heart disease that may be mentioned are irregular pulse, intermittent pulse, rapid pulse, compressible pulse, small pulse, weak pulse, hard pulse, pain about the heart, oppressive breathing or shortness of breath, feeling of weight over the breast, dizziness, throbbing of the veins of the neck, blue appearance of the lips or of the general surface, coldness of the extremities, feebleness and languor, dyspeptic symptoms, sticking pains through the muscles, fear of death, despondency, nightmare, etc.

Treatment.—Proper hygiene must be rigidly observed. Overeating and late suppers must be avoided. The surface should be thoroughly bathed two or three times a week. All excitement and over exertion must be avoided. Pure air and sunshine are important, etc.

Where other diseases, such as liver trouble, dyspepsia, syphilis, bright's disease, lung trouble, etc., act as causes, they must be treated according to the principles laid down for the treatment of each of them.

As a general prescription for heart trouble of a chronic character, the following will often be found beneficial:

Fluid extract of ergot, 1 ounce.

Tincture of iron, 1 ounce.

Tincture of digitalis, $1\frac{1}{2}$ drachms.

Tincture of belladonna, 1 drachm.

Syrup of sugar, 2 ounces.

Mix, and take one teaspoonful four times a day in water.

Keep the bowels regular with the liver syrup mentioned under general formula.

The croton oil liniment, mentioned under general form.

ula, may be used over the heart when there is much pain or soreness about the heart.

In old chronic troubles of the heart, accompanied by much soreness or pain, the following may often be used with great benefit:

Iodide of potash, 1 ounce.

Succus Alteraus, 3 ounces.

Tincture of digitalis, $1\frac{1}{2}$ drachms.

Syrup of sugar, 4 ounces.

Mix, and take two teaspoonfuls three times a day. This should be used every other week, at least until the heart trouble is removed, or well relieved.

DISEASES OF THE NERVOUS SYSTEM.

Under this head we shall take notice of some of those diseases which result from an affection of the brain and spinal cord. Many of the diseases of the nervous system are so obscure that their diagnosis and treatment is entirely left to the specialist. Only the more common forms of nervous disease will be treated of in the following sections.

INFLAMMATION OF THE BRAIN, OR PHRENITIS.

This is a very fatal disease, and may arise from several causes. It is most frequent between the ages of one and five years, and between fifteen and forty-five. It is more commonly a complication of other diseases, such as scarlet fever, typhoid, etc., than an original disease. It may terminate fatally in from twenty-four hours to three weeks, or it may, by proper treatment, terminate favorably. Persons with large brains and of a nervous temperament are more subject to it than others.

Symptoms.—The disease may be ushered in by chilliness followed by fever. There is ringing in the ears, fullness of the head, etc., which is soon followed by pain in the head, which is more or less intense. There are apt to be flashes of light before the eyes. The pupils are contracted and there is great sensitiveness to light and noises of every kind. The patient is extremely restless and sleepless. De-

lirium either precedes or soon follows the attack. Vomiting is common. At first the pulse is generally strong and frequent and may be somewhat irregular, especially later in the attack. The tongue is generally coated white and the bowels constipated. Convulsions of an active character are common in the early stages of the disease. As the disease advances and effusions begin to take place and produce an intense amount of pressure upon the brain, all the symptoms change and become of a lower grade. The pulse becomes weaker, more compressible, and more irregular. The surface is apt to become clammy and bathed in a sticky sweat. The tongue becomes thick, and stumbles on words. The sleep becomes stertorous and comatose. The delirium is muttering. In fact the patient becomes in every way more apathetic. The urine may be retained or the urine and the feces may both pass involuntarily.

The patient's mind becomes utterly confused, so that he cannot collect his ideas. The heat in the head may become intense. The convulsions may be reduced to a mere cramp or twitching or drawing up of the muscles. The pupils of the eye become widely dilated. The taste of the patient may become entirely destroyed, and all of the other senses either become impaired or entirely destroyed. This last condition, it will be observed, is in exact contrast to the first stage, where every sense (if we except the sense of feeling, in some cases) is more intensely acute than in health; light and the slightest noises being simply unbearable.

Treatment.—Here I am compelled to depart to some extent from the teachings so commonly laid down in works of practice upon this disease.

As soon as the disease shows itself, the patient should be rapidly brought under the full influence of lobelia. Ten grain doses may be given in a little warm water once in fifteen minutes until the patient is thoroughly relaxed. Use the pulverized lobelia seed until the skin is bathed in sweat, and until the tension of the brain is relieved.

If the stomach is sour, give a half teaspoonful of bicar-

bonate of soda in a little warm water during the emetic, and repeat until the stomach is thoroughly sweetened.

During the action of the lobelia, have the patient drink freely of warm water, and of the composition tea mentioned under general formula. The composition tea may be given often enough after the emetic to keep the surface in a warm sweat. An excellent measure is to allow the patient to lie in a bath tub of hot water, ten or fifteen minutes at a time, two or three times a day, thus equalizing the circulation of the blood and drawing the termination of the blood away from the brain. In the absence of a bath tub, the patient may be wrapped in large blankets or sheets, wrung out of hot water, and remain thus until he receives a thorough sweating. This may be repeated once or twice a day until the fever and inflammation have subsided. Keep the patient's surface and extremities in a warm sweat, at all hazards, until the symptoms of active inflammation have subsided. Our first and most important object is to arrest inflammation and prevent serous exudation upon the brain. There must be no temporizing here, if we would save the patient. The lobelia and the applications of hot water and the composition tea *must be* pushed until we have distributed the circulation of the blood equally throughout the system and have drawn its termination from the brain.

After the patient has come out from under the influence of the lobelia, he may be placed upon the following, with the view of still further relieving the termination of blood from the brain.

Bromide of potash, 1 ounce.

Tincture of gelsemium, 1 ounce.

Pure water, 4 ounces.

Mix, and take one teaspoonful once in two or three hours according to the urgency of the symptoms.

Where the foregoing treatment is not sufficient to cool the head, bags of pounded ice may be applied to it and renewed as the symptoms may demand.

As soon as the disease first commences, a large injection of warm soap suds should be given to move the bowels.

After the injection, give a Seidlitz powder once an hour until the bowels move thoroughly.

Where necessary to control the fever, the fever drops, mentioned under general formula, may be used.

The patient should be nourished on gruels, broths, etc., until the active stage has passed. If he can retain no nourishment in the stomach, it may be given by the bowels.

Where necessary to control pain one-eighth of a grain of sulphate of morphine may be hypodermically injected into the arm as occasion requires. Use as little opiates in this disease as the circumstances will allow. If necessary one or two leeches may be applied behind each ear or over the temples, for the purpose of relieving congestion.

The patient should be kept in a properly ventilated room with the head slightly elevated.

None but medical attendants and nurses should be allowed in the room. All jarring and noises must be strictly avoided.

The patient's surface should be sponged frequently with a warm alkaline bath.

DROPSY OF THE BRAIN OR HYDROCEPHALUS.

This consists of an effusion between the meninges or within the ventricular cavities of the brain.

Symptoms.—This disease as a rule originates in early infancy. It often happens that the infant is born with it. The gradual accumulation of fluid within the cranial cavity presses the bones of the skull apart at the various sutures, causing such pressure upon the brain as to prevent its proper development; the eyes bulge outwards and downwards from their sockets; the head becomes enormously large, and the general system of the child fails to properly develop. The disease is nearly always essentially chronic and is easily recognized.

Treatment.—Correct hygiene should be observed in every particular in the care of the child. It should also be fed on mother's milk. The compound syrup of hypophosphites of lime, soda, potash and iron should be given three

times a day in appropriate doses. Elixir of pepsin may be given to the child when it takes nourishment.

Tapping and allowing the fluid to escape, afterwards bandaging the head, has been followed by a few cures. The disease as a rule is incurable.

SPINA BIFIDA.

This disease consists of a congenital malformation of one or more joints of the spinal column, in which some part of a vertebra is wanting, allowing the meninges, with their contents, to bulge out through the opening, which forms a tumor over the back bone, varying in size from a small nut to the size of a child's head.

The tumor is generally situated in the lumbo sacral region, but may, however, appear over any portion of the spine. The contents of the tumor are always fluid, and may sometimes be slightly reduced by pressure. Pressure on the tumor nearly always causes pain.

Sometimes the tumor ruptures, and recovery or fatal inflammation may follow.

Sometimes the fluid may be absorbed away, but this is rare.

The disease, unless properly treated, nearly always results fatally. Sometimes, however, persons suffering from this disease live to a ripe age.

Treatment.—Perhaps the most successful treatment for this disease is that recommended by John Ashurst, jr., M. D. He employs a solution of iodine and iodide of potash in glycerine, as follows:

Iodine, 10 grains.

Iodide of potash, 30 grains.

Glycerine, 1 ounce.

Mix, and after drawing off about one-half of the fluid of the tumor with an aspirating syringe or a very fine trocar and canula, he injects, by means of an aspirating syringe, from one-half to three drachms of the above mixture into the tumor, allowing it to remain. The injection should be made slowly. After the injection a muslin bandage may be passed around the body in such a way as to ex-

ert a moderate pressure upon the tumor. Out of fifty cases treated in this way by James Morton, of Glasgow, forty-one cases proved successful.

The patient's strength should be maintained by nourishing diet. He may also use cod liver oil and compound syrup of hypophosphites of lime, iron, potash and soda, three times a day.

The above injection into the tumor may be repeated after a few days where necessary.

PARALYSIS OR PALSY.

Palsy consists of either a partial or total loss of sensation or voluntary motion in a part. Where palsy affects all parts of the body, it is called *general* palsy; where it affects only a part, it is denominated *partial* palsy. Where only one limb or muscle, or small section of the body is affected, it is called *local* palsy. Where one *side* is affected it is called *hemiplegia*. Where the lower extremities only are affected, it is called *paraplegia*. Paralysis of sensation only in a part, is designated *anaesthesia*.

Causes.—Paralysis of a part is caused either by pressure upon a nerve—as by a foreign body, a tumor, or congestion, or extravasation of blood, or clot of blood, or indentation of any of the bones which line or protect the nervous centers; or by a solution of the continuity of the nerve, either at its origin in the brain, or spinal cord, or at some point outside of and between the nerve centers and the paralyzed portion. It will be readily seen that either sufficient pressure upon a nerve, or a disintegration of its component parts, either at its origin or along its course, must destroy either the manufacture or the transmission of nerve force, without which there can be no sensation or motion according as to whether the nerve center affected is one of *sensation* or *motion*.

Symptoms.—The paralysis of a part may come on so suddenly that it is common to say that the patient has had a "stroke" of paralysis, or it may come on gradually, pre-

ceded by various symptoms in the affected part, such as prickling pain, or numbness and weakness.

Where the cause resides in the brain, the patient may become comatose or insensible at the opening of the attack. Spasms may occur. The patient groans, swallows with difficulty and is apathetic, and more or less fever is present. Speech is difficult, the patient cannot collect his thoughts, he cannot stand or walk, he groans and sighs and complete consciousness returns slowly if at all.

The tongue is thrust from the mouth with difficulty and generally to one side. The speech is muttering and indistinct, the patient can scarcely swallow, and he is inclined to sleep.

When the lesion of the nerve center occurs below the brain, the peculiar symptoms, enumerated above, which are referable to that organ, are absent. There is no loss of consciousness nor mental aberration or delirium such as is apt to be present when the brain is affected, but on the contrary the symptoms are referable to the want of *sensation* or *motion*, or *function* of the affected part.

Keep one point distinctly in view, viz.: that when the nerves of any organ become paralyzed, then its functions become at once impaired in exact proportion to the extent of the paralysis. Hence, if the nerves supplying the stomach, are paralyzed, there is an immediate arrest of digestion. If of the bowels, there is obstinate constipation. If of the bladder, there is dribbling of the urine. If of any muscle or limb, there is either a loss of sensation or use.

As a rule the temperature of the affected part is reduced on account of the imperfect supply of blood to the part. It is quite often difficult to keep the affected part warm, requiring hot applications.

Sometimes cramps and spasms attend the attack, and the muscles in some cases become permanently drawn so as to permanently draw up the legs, the toes, the arms and the fingers. The joints may become stiff and rigid while in these distorted positions causing a terrible deformity of the patient's person.

Treatment.—The first care should be, if possible, to find

out the seat of the lesion, whether it be in the brain or spinal cord. A mustard draught should be at once applied over the seat of the trouble, great care being used not to blister, as blisters over paralyzed surfaces heal slowly and are liable to extensive sloughing.

The following tea may be given internally:

Prickly ash (bark of the root), 1 ounce.

Prickly ash berries, 1 ounce.

Hot water, 1 quart.

Steep in a covered vessel and keep up to nearly boiling point for half an hour.

Dose: take a tablespoonful once every one or two hours. This mixture generally causes a prickling sensation of the throat and skin. This need not alarm the attendants, as it is a good symptom. Don't give enough of the remedy to make the prickling sensations unbearable; but give enough to make them distinctly felt at first. As the patient improves, less may be required. A little whiskey may be occasionally added to the tea where necessary.

I would advise my readers to push the use of the prickly ash, as I think that it is the best agent that we have in paralysis.

The tea may be given warm or cold, and the amount used must be governed by the patient's tolerance of the remedy. As much should be used as the patient can comfortably tolerate. The berries and bark should be freshly dried. Be sure that you get a good article.

After the acute stage has passed by, I would advise you to put the above amount of berries and bark into one quart of the best whiskey and allow it to stand for one week before commencing to use. Then take a tablespoonful once in three or four hours as the patient can stand it. Allow the berries and bark to remain in the whiskey while using off it.

The laxative syrup, of my general formula, and injections may be used to keep the bowels regular.

After the acute symptoms have passed off, the following mixture may be used between the doses of prickly ash:

Strychnia sulphate (in solution) 3 grains.

Dilute phosphoric acid, 3 ounces.

Tincture muriate of iron, 2 ounces.

Quinia sulphate, $\frac{1}{2}$ ounce.

Syrup of sugar, to make 1 pint.

Mix, and take one teaspoonful three or four times a day, in water.

The patient should be bathed every day or two. The cold shower bath is excellent, rubbing afterwards with a rough towel.

Flannel should be worn next to the paralyzed surfaces.

Nourishing food that is easily digested should be used. Where the stomach is weak, the wine of pepsin, mentioned under general formula, may be used.

After the disease becomes chronic, the battery may be used to gently shock the muscles of the palsied part for two or three minutes at a time, three times a day.

The above treatment, if intelligently carried out, will give great satisfaction in many cases.

CHRONIC SOFTENING OF THE BRAIN.

This disease results in the softening of the brain substance. It is almost exclusively confined to advanced adult life, and is generally very fatal.

Causes.—Among the more prominent causes may be mentioned long continued intemperance in the use of intoxicating beverages and tobacco. Impure blood and anemia are also mentioned as causes. Obstruction to the proper circulation of the blood through the brain also acts as a cause.

Symptoms.—The symptoms as a whole are on a range with the decay of the mind and of all nervous energy. The memory fails. The patient in the midst of a sentence will forget what he was going to say, and unless his attention is called to the subject again, he may commence talking upon a subject utterly foreign to the half finished subject which he has just left off. Thus it will be seen that the mind wanders.

The patient becomes weak, he suffers from giddiness, his gait becomes unsteady; he trembles in one or more of his members upon attempting to do something, the face is pale, the pulse is slow, in short, there is a general flavor of senile decay. Partial or general palsy often sets in. The patient becomes sexually impotent.

Treatment.—A thorough system of cool baths and shower baths followed by thorough friction with a rough towel, nourishing food, sunshine, warm clothing and general hygiene are of the utmost importance in this disease.

The bowels may be kept regular with the laxative syrup mentioned under general formula.

The patient may use the wine of pepsin, mentioned under general formula, at meal time, and where he is poorly nourished, cod liver oil may be used after meals.

The compound syrup of hypophosphites with iron and strychnia may be used right along three times a day in teaspoonful doses.

The above treatment should be persisted in for several months where necessary.

EPILEPSY.

This disease consists of periodical fits or convulsions of a whole or part of the system, which are accompanied by a period of *total unconsciousness*.

Causes.—The fits are caused by irritation of the nervous centers at some point, which irritation disturbs, perverts, or periodically augments the transmission of nerve force to such an extent as to cause spasms of the parts which are supplied by nerves, which originate at the center or centers of irritation; or the point of irritation may be located during the course, or at the extremity, of a nerve, which irritation may be transmitted to the brain through the spinal cord, and reflected upon other nerve distributions, causing spasms or fits by *reflex action*.

The irritation of the nerve centers, or of the nerve terminations, is owing to many different causes in different cases: but these causes may all be summed up, in a general way, as consisting of: First, *foreign bodies*, under which head

may be mentioned any substance which has lodged in any part of the system by accident, worms, indigestible food in the stomach and bowels, tumors of all kinds so situated as to exert pressure upon the nerve centers or the nerve trunks or extremities, indentations of the skull or spinal column from the force of blows or a fall; the pressure of trusses, uterine supporters, or deformity apparatus improperly applied, old roots of decaying teeth; or the cause may be pressure from congestion or extravasation of blood upon some part, collections of pus, inflammation with ulceration of nerve centers, etc.

Concretely and remotely it is proper to mention that hereditary influence undoubtedly exerts a very pronounced causative influence in producing epilepsy. Insanity, phthisis, syphilis, epilepsy and intemperance all exert hereditary effects which are pronounced in character. The lithic acid, diathesis, which results in stone in the bladder, gout, etc., also exerts an influence.

While this disease is sometimes cured under the hands of skilled specialists, the *prognosis* is often very discouraging. We can only hope to cure the disease where the cause can be removed. The detection of the cause, in many cases, taxes the skill of even the specialist, to the utmost.

Symptoms.—There are generally some peculiar symptoms which precede an attack. These vary in different cases. The patient, if he watches carefully, can become familiar with those which he experiences in his own person. Among the more general of these (aura epileptica) may be mentioned, flashes or rings of light before the eyes, narrowing of the visual field, and pains about the eyes. Ringing or roaring in the ears are sometimes heard. Sometimes the patient may fancy that he smells foul odors of different kinds, as smoke, turpentine, etc.

Sensations may start in the extremities or stomach and gradually pass upward, and the fit comes on by the time the throat is reached or before. Space forbids mentioning all the symptoms of the epileptic aura.

The fit may be very light, only affecting a few muscles and only lasting a few moments, (*petit-mal*), or it may be

very severe, affecting nearly all of the muscles with a powerful spasm, (grand mal).

When the patient is taken with a violent fit he is apt to utter a wild shriek, or he may start and run, or he may attempt acts of violence. In a few moments, however, he is stricken down. He may fall into the fire or fall from a height and do himself great harm. As a rule he is for a few moments rigid, after which terrible convulsive spasms come on, which last for several minutes. The head and eyes may be drawn to one side or thrown backwards, the teeth gnash, often biting the tongue terribly. The mouth froths, and the face, which is at first pale, becomes flushed.

The patient is *totally unconscious*, and this forms one of the distinguishing features between this disease and hysteria, in which disease there is never total loss of consciousness.

After the patient comes out of the spasm, he is generally tired and sore, and frequently goes off into a sleep of longer or shorter duration.

In cases where the fits occur mostly at night, the prognosis is generally discouraging.

The appetite is apt to be ravenous in this disease, and as a rule the bowels are constipated.

There is frequently a peculiar eruption of purplish looking pimples about the shoulders and body.

As the disease progresses the patient gradually loses his memory and the general activity of the mind is badly impaired.

Sometimes the severity of the spasm causes dislocation of some of the joints.

Treatment.—All known causes must, as far as possible, be removed.

The patient should take two or three thorough hot baths weekly. All the rules of hygiene should be strictly observed.

The diet may consist of fish, poultry, fruit and fresh vegetables.

The bowels may be kept regular with the laxative syrup mentioned under general formula.

The wine of pepsin, mentioned under general formula, may be taken before meals where the stomach is deranged.

Various agents have been used for the purpose of preventing a recurrence of the fits. Among them may be mentioned the bromide of soda, bromide of potash, bromide of ammonia, bromide of nickel, hydrobromic acid and bromate of potash, musk, ergot, chloral, belladonna, nitrite of amyl and nitro glycerine.

A convenient prescription may be made as follows:

Bromide of potash, 1 ounce.

Bromide of sodium, 1 ounce.

Bromide of ammonium, $\frac{1}{2}$ ounce.

Fluid hydrastis, 1 ounce.

Simple elixir, 7 ounces.

Mix. Dose: for an adult, one or two teaspoonfuls in a little water from two to four times a day. This may be used five days out of each week for a long time. The dose may be gradually lessened as the disease disappears. If the stomach becomes too much affected by its use at any time, the patient may rest from it for a few days until the stomach recovers. The wine of pepsin before alluded to will be found a powerful factor in maintaining the integrity of the stomach.

Where there is pain in the kidneys, use a belcapsic plaster across the small of the back.

Where there is a history of syphilis in the case, 15 or 20 grains of iodide of potash should be taken three times a day at the same time that the above mixture of bromides is being used. The iodide of potash may be taken in half a glass of water to each dose.

Any intercurrent disease must receive its appropriate treatment.

Ten or fifteen drops of nitrite of amyl dropped on a handkerchief and inhaled will prevent a fit from coming on if the patient will use it when he feels that the fit is at hand. One-fiftieth to one-twenty-fifth of a grain of nitro glycerine in an alcoholic solution frequently exerts the same effect.

Where the patient is somewhat reduced and the blood needs enriching, a teaspoonful three times a day, of the com-

pound syrup of hypophosphites with quinia and strychnia, as made by Parke, Davis & Co., may be given.

The patient should live in low altitudes as near the level of the sea as he can.

APPOPLEXY.

This is a disease which more often affects adults and persons of advanced age.

Causes.—It is caused *directly* from *pressure* upon the brain. This pressure may result from congestion, or from an effusion of serum, or from a rupture of some of the vessels which supply the brain, thus allowing a hemorrhage upon the brain which exerts a sufficient *pressure* of the brain substance to bring on an attack. *Indirectly* the disease is hereditary. Old age exerts a predisposing cause; diseases of the heart and kidneys, and diseases of the arteries and brain exert a causative influence. Persons with a large head and a short thick neck are more subject to it.

In a general way, heavy lifting, straining at stool, coughing, tight bandages around the neck, or striking in of eruptions may cause an attack.

This is a very serious disease, and may be followed by paralysis of some part of the system. It may take the patient from a few hours to a week or more to recover from an attack, or it may prove fatal. There is less show of recovery after each succeeding attack, the patient rarely living through more than three or four attacks.

Symptoms.—There may be drowsiness, dizziness, sickness at the stomach, flushing of the face, confusion of ideas, staggering gait, thickness of speech, headache, etc., before the attack. When the patient is attacked, he suddenly loses sensation and consciousness, as a rule. If he is standing, he falls. If a limb is lifted it falls, as though the man were dead. Sometimes some of the muscles of the body or limbs are in a state of cramp. The pupils of the eye are insensitive to light, and they may be dilated or contracted, or unequal. The breathing is apt to be stertorous, and the cheeks may flap in and out as the patient breaths. The patient blows froth in flecks from his mouth. The breathing is

generally slow, and the pulse slow and full, and sometimes irregular. The face is generally flushed and red, but sometimes it may be purple or pale. The patient is sometimes unable to swallow, and sight and hearing are generally lost.

Treatment.—As soon as the patient is stricken with an attack, his legs should be placed in very warm water to the knees. If the face is flushed and hot, cold applications such as ice bags, etc., may be placed to the head.

The patient's bowels should be moved by injecting a quart or two of warm water to which is added fifteen or twenty grains of pulverized capsicum and as much pulverized lobelia seed.

This may be repeated if the patient does not regain consciousness in half an hour.

Bleeding from the arm is often excellent. The pulse must be watched and if it becomes flickering or weak, the flow of blood must be stopped at once.

A teaspoonful of fluid extract of ergot may be given and repeated once in four or five hours until two or three doses have been given.

Thirty grain doses of bromide of potash may be given three or four times a day for several days, or until the giddy feeling of the head is removed.

The bowels should be kept open by the laxative syrup mentioned under general formula.

The strength may be supported, where necessary, by giving a teaspoonful three or four times a day of elixir of phosphate of iron, quinia and strychnia.

The food for a time must be very light, consisting of soups, broths, gruel and milk or beef tea.

The surface should be bathed in hot water every day.

The patient must be exceedingly cautious for several weeks after the attack not to exert himself. Where there are evidences of syphilis or other diseases, the patient must be treated for these as occasion requires.

Twenty grain doses of iodide of potash in water, given three times a day, are good to assist in the removal of

blood clot from the brain. This may be kept up for some time.

CHOREA OR ST. VITUS' DANCE.

This disease consists of certain spasmodic movements, and twitchings of the voluntary muscles.

It is caused by irritation of those nerve centers which control voluntary motion. This irritation may be owing to congestion, tubercle, tumor, cancer, injuries, intense cold or heat, etc.

The disease is more common before puberty.

It is rarely fatal, most cases ending after a longer or shorter time in recovery.

The disease may occur and recover and be followed by subsequent attacks.

Rheumatism and diseases of the heart seem to exert a causative influence.

Repeated or long continued attacks are apt to enfeeble the mind as well as to make the patient excitable, sullen, morose or erratic. Heredity exerts an unmistakable influence in the production of the disease.

Symptoms.—Various muscles or groups of muscles are seen to twitch; an arm may jerk; the tongue may be protruded and withdrawn, all the muscles of the mouth, eyelids and face may present grotesque grimaces; the arms may be flopped about, the head thrown about in various positions, speech may be seriously interfered with, the legs, one or both, may be flopped about, etc. One or both sides of the body may be affected.

The symptoms generally subside during sleep, but this is not always the case. The patient is excitable and may laugh or weep immoderately upon the slightest provocation.

Treatment.—The patient must observe strictly correct habits of health, as to food, sleep, clothing, bathing, etc.

A cool bath in salty water on first rising is an excellent regulation. Internally some preparation of arsenic stands at the head. Prof. Wharten Sinkler, M. D., of the Infirmary of Philadelphia, for nervous diseases recommends Fowler's solution as the best form in which to administer arsenic.

He directs its use as follows: "The amount of arsenic which can be safely borne by children is surprising to those who have not had experience in its administration. The medicine should be given in gradually increasing doses until the toxic symptoms are well marked, or until the patient is convalescing. In a child of six years three drops may be given to begin with, three times a day. One drop additional should be added to the dose each day, and the child soon acquires a remarkable tolerance of the drug. As much as twelve or fifteen drops at a dose is borne by a child of eight years. If vomiting or much swelling of the face occurs, the medicine should be stopped for a day or two, and then the original dose should be taken, to again be increased as before."

I regard Dr. Aiken's tonic pills as a very valuable compound in the treatment of this disease. They can be had of druggists. Each pill is a dose for an adult.

Where they are given to children, the pill may be divided so as to suit the age of the patient, according to the directions given under the table of doses in this book.

When the eyelids or face puff, then the pills should be discontinued for two or three days until the swelling has gone down, and then used as before.

Three doses daily of the pills may be given subject to the above directions.

If the patient's bowels are constipated, he may use the laxative syrup, mentioned under general formula in this book.

CONVULSIONS OR SPASMS.

These may attend the course of quite a number of diseases. They are always the result of reflex action of the spinal cord. The reflex activity may be brought on by irritation in the brain, the cord, or along the peripheral distribution of the nerves.

Wounds, blows, falls, worms in the stomach or bowels, high fever, congestion of the lungs, severe pains, irritation from a tooth, pressure on some nerve from a tumor, stone in the kidneys or bladder, passage of renal or hepatic calculi, obstruction of the bowels, painful menstruation, exces-

sive mental excitement, foreign bodies lodged in any part of the body, painful pressure upon any part by surgical or other applications, improperly applied, which act as a source of irritation, etc., may each be the cause of convulsions. Persons with large heads and a highly developed nervous system are more subject to spasms than others.

Symptoms.—The onset of spasms or convulsions is so well known by everyone that a description is scarcely necessary.

At first only a muscle or a finger or a single limb may begin to jerk or twitch. Soon the spasm becomes general. The patient may either cramp, being in a stiffened condition, or he may twitch and jerk in a violent manner. He is apt to roll the head and eyes; the teeth may gnash and the mouth froth. The tongue is liable to be bitten. The patient may be bent backwards or to one side, and a part or whole of the body is either stiffened or thrown into violent motion. The writhings, contortions and struggles of the patient are often fearful to behold. Breathing and the circulation of the blood may become so seriously interrupted that the face and surface may become purple or livid, and a condition which seems to threaten immediate death causes the greatest alarm in the breast of every beholder. The spasms may last from a few moments to twenty-four hours. As a rule the spasms are intermittent, allowing a period of more or less complete relaxation between each one.

Treatment.—In the treatment of convulsions strict attention must be paid to the removal of causes before *permanent* relief can be obtained.

If a foreign body be the cause, it must be removed. Whether it be a splinter, stone in the bladder, kidney or a gall stone, or whether it be from any other source of irritation. If the tooth of the child be pressing against the gum, then it must be cut, etc.

As to internal remedies the following may be used. (Always remember that the doses prescribed in this work are for adults, unless otherwise mentioned.)

Tincture of gelsemium, 1 ounce.

Tincture of opium and camphor, 1 ounce.

Compound spirits of ether, 1 ounce.

Tincture valerianate of ammonia, 1 ounce.

Syrup of sugar to make $\frac{1}{2}$ pint.

Mix, and take one or two teaspoonfuls in a little warm water once in fifteen minutes until the spasms stop.

There are many remedies useful for the arrest of spasms. If the patient is very hot and feverish, he may be put in a cold wet pack with the greatest benefit.

A half teaspoonful of fluid extract of lobelia taken inwardly or by injection into the rectum, and repeated once in fifteen minutes until the spasms stop, is excellent.

Allowing the patient to lie in a hot bath, or wrapping him up in a sheet wrung out of hot water, is often an excellent remedy.

Hypodermic injections of one-eighth grain of sulphate of morphia, repeated in a half or three-fourths of an hour, are sometimes of great benefit. Care must be taken not to use fatal doses of morphia. The effect is the only criterion of the size of the dose in these cases.

Fifteen or twenty grains of hydrate of chloral, combined with thirty or forty grains of bromide of potash, and given in half a glass of water at a dose, and repeated in half an hour, if necessary, is excellent.

TETANUS, OR LOCK-JAW.

Tetanus is a peculiar condition of the system, which leads to tonic spasm of the various muscles of the body. The rigidity thus produced is extreme.

The disease derives the name of lock-jaw from the frequency with which the muscles controlling the action of the lower jaw become so rigid that the jaws are locked together.

The disease generally occurs as the result of a wound. A wound from a sharp, penetrating instrument, especially if loaded with iron-rust, is most to produce it.

Those injuries, which wound the periosteum, or lining membrane of the bone, are most liable to produce lock-jaw.

The disease is one of the most fatal and painful known to man, about ninety per cent. of those affected dying from it.

Symptoms.—In from a few hours to several weeks or months, the seat of the wound may become painful. As a rule, if the patient escapes twenty-one days, he will not be affected from lock-jaw as the result of a wound. The wound may heal kindly before any symptoms of the disease present themselves. The sore may or may not fester before the onset of the disease. Pains are apt to appear over the site of the wounded part. These pains extend to the neck and jaws. Stiffness about the muscles of the neck, throat, and jaws, are among the earliest symptoms of lock-jaw. The patient begins to feel a difficulty in opening the mouth and in swallowing. Or, the mouth may be permanently drawn open. The rigidity of the muscles of the face may either tightly compress the lips or produce a horrible grin which exposes the teeth and draws the cheeks backward toward the ears. This expression is called the *risus sardonicus*. This rigidity which attends the muscles of the face and neck, may gradually extend to all the muscles of the limbs and body so that all voluntary motion is almost entirely suspended. This tonic rigidity of the muscles is generally paroxysmal or intermittent. As the disease advances, the time between the paroxysms grows shorter and the paroxysms become more violent and terrible. The head and the body may be drawn to one side (pleurosthotonos), or they may remain perfectly straight (orthotonos), or they may be bent forward (emprosthonos), or they may be bent backward (opisthotonos). The head may in extreme cases bend backward until it touches the heels.

The suffering of the patient during the spasms is painful in the extreme.

The spasms may entirely relax a few hours before death.

The patient is apt to retain his proper senses until the last hours of life.

Treatment.—Let us remember at the outset that no time is to be lost.

If heroic medicine could be questioned in every other field of practice, one thing is *certain*, viz.: that nothing else can be of any avail here. Then let us to our task, and let us be men. No temporizing can save the patient.

The first thing to be considered is the wound which led to the lock-jaw.

If it is festerd or tender upon pressure, it must be opened to the bottom. Then apply to it thoroughly, and keep it wet with the following until it heals:

Carbolic acid, 80 drops.

Pure water, 8 ounces.

Mix, and wet the wound once in three hours. Wet a cloth with this mixture and keep it over the wound. Do not allow the wound to take cold.

Internally use the following:

Pulverized lobelia seed, 30 grains.

Pulverized capsicum, 4 grains.

Warm water, $\frac{1}{4}$ pint.

Mix. Inject and retain in the bowels once in 30 minutes until the whole system is *thoroughly relaxed*. If the spasms recur again, repeat the same as *often as necessary*. *Stick to this*.

The above amount of lobelia thus given is likely to produce thorough vomiting. When the patient vomits have him drink a glass of warm water after each effort of vomiting. Along between the times when he vomits have him drink freely of tea made from the composition powder mentioned under general formula. If the lobelia does not sufficiently relax the patient, wrap him in a sheet wrung out of hot water and renew this as often as necessary to keep it quite warm. Keep up the above treatment until the patient is thoroughly relaxed and all spasms are relieved. After this a dose of the composition tea may be given once in two or three hours to stimulate the patient and keep him warm and moist.

After the use of the lobelia has been discontinued, the

following may be given along between the doses of composition tea:

Tincture of gelsemium, 1 ounce.

Tincture of opium and camphor, 1 ounce.

Tincture valerianate ammonia, 1 ounce.

Compound spirits of ether, 1 ounce.

Syrup of sugar to make 8 ounces.

Mix, and take two teaspoonfuls once in two hours while there is any tendency to spasms. In an emergency, this medicine may be repeated every half hour until the patient is relaxed. It is perhaps one of the best anti-spasmodic compounds that could be suggested.

Where necessary, hypodermic injections of from one-eighth to one-fourth of a grain of sulphate of morphia may be used if the patient cannot get proper sleep without this.

The patient should be abundantly nourished on beef tea or milk, or both. If he cannot swallow, the food may be injected in sufficient quantities four times a day.

The room should be kept sufficiently warm so as to keep the perspiration from drying in upon the patient.

CATALEPSY.

This is a very singular malady and its causes are quite obscure. This disease is very rare.

Symptoms.—The patient remains in the same *position* in which the attack commences upon him. He becomes rigid. If a limb or portion of the body is bent, it remains in whatever position it is placed. It may be that the patient may appear like one dead. The face may become pale, and the breathing may have apparently stopped. In such cases if a mirror be held before the nose or mouth, a light mist can generally be detected upon it, showing that the patient is still breathing. It is sometimes almost impossible to tell whether the heart has stopped beating or not. The patient may remain in this condition from a few minutes to days at a time. Great care must be used to not bury the patient alive, as has doubtless sometimes been done. Sometimes only a limb, one side of the body or a few muscles may be

affected. Thus it will be seen that the disease may be local or general. Sometimes the patient is unconscious, and at other times knows everything that is going on. All voluntary motion is always entirely checked.

Treatment.—The treatment of this disease has not hitherto been very successful, therefore the Author makes haste slowly in suggesting a treatment.

Let the reader remember one thing, viz: that the disease is generally secondary to some other diseased condition of the system, such as disease of the womb, worms or disease of the brain. Hence it will be readily discovered that where the cause is discoverable that this must be removed before any permanent good can result.

I will, however, suggest a course of treatment for relief from the attack, which I hope will be found satisfactory. As soon as the patient is attacked, give him the following:

Tincture lobelia, 2 drachms.

Paregoric, 4 drachms.

Tincture capsicum, 2 drachms.

Mix, and take one teaspoonful once every half hour for three or four doses. If the patient cannot swallow, he may have the above dose given in a half teacup of warm water by injection once every half hour for three or four doses.

The patient should be put to bed as soon as the attack comes on and be wrapped in a sheet wrung out of water as hot as can be borne, and as soon as this becomes cool it must be renewed. It is a good plan to put the patient in a hot bath for a few minutes. The feet and extremities must be kept warm. A mustard draught to the spine and the feet is also good. If the above does not relieve, a physician must be called.

HYDROPHOBIA.

This disease is caused by being bitten by a rabid animal. Less than fifty per cent of those bitten become afflicted with the disease. From three to seventy days (and longer in some cases) elapse between receiving the hydrophobic virus into the system and the commencement of the disease.

Symptoms.—The first symptom of the approach of the disease is, as a rule, the festering of the point bitten. Pains also appear at the seat of the bite and shoot up toward the body, if the bite has been in a limb. The patient's mouth will slobber after the disease is developed, and terrible spasms occur intermittently. The sight or the sound of water pouring will throw the patient into a spasm.

The patient's thirst is terrible, but he has no power of gratifying it. There is a feeling of stiffness about the neck and jaws. The patient is apt to become delirious and furious.

Treatment.—The treatment of the disease is quite unsatisfactory. Nearly all patients afflicted with this disease die.

The Author will offer a few suggestions.

As soon as the patient is bitten, the part bitten should be at once cut off if this can be done without injuring the patient too seriously. If the parts are so situated that they cannot be cut away, then fill the wound full of pure carbolic acid until it is thoroughly burnt. Give the patient the following prescription internally:

Bichloride of mercury, 2 grains.

Iodide of potash, 130 grains.

Compound fluid extract of stillingia, 2 ounces.

Syrup of sugar, 2 ounces.

Mix and take one teaspoonful three times a day.

Parke, Davis & Co. have put out a remedy by the name of *hoangnan* which, it is claimed, has cured many cases. It could not hurt to try it.

The madstone has been highly extolled by many. I know nothing personally of its merits.

Large and frequently repeated doses of whisky are of undoubted virtue in snake bites, and I believe that they are where the patient has been bitten by a rabid dog, but I only know of a trial in one case. In that case the patient used the mercurial preparation, mentioned above, with large and frequently repeated doses of whisky. The patient recovered.

INSANITY.

This is a disease of the brain. The proper balance of the mind is destroyed. The disease assumes several forms. The causes and treatment are so obscure and difficult as to be entirely beyond the capacity of any but those physicians who have made a special study of the mind and its diseases. Insanity is hereditary as a general thing. Asylums are prepared by the various states for the care of these poor afflicted ones. It is always advisable to have the insane put under the care of those who make a business of their treatment, and who have every convenience for their proper care. Many happy cures are in this way effected every year.

Persons suffering with insanity should always be closely watched, as the mildest patient may at any time become furious and do some terrible thing.

Diagnosis.—An insane person is apt to talk in a rambling and disconnected manner. They use profanity, even where they are persons of moral character. Their eyes generally have a wild, unnatural stare. The face may be pale or flused. During their fits of raving they very often possess an almost superhuman strength.

As soon as it is discovered that a patient is insane, a physician should be at once sent for, or the patient removed to an asylum.

CRAMP.

Involuntary contraction of a muscle constitutes cramp. The muscle is put upon the stretch, and feels hard to the hand. The pain attending cramp is often terrible. The cramp may last from a few moments to several days at a time.

Treatment.—The best measure of relief, where convenient, is to plunge the affected part, or, better, the whole person, into a bath of water as hot as can be borne, remaining in the bath for twenty or thirty minutes, until the patient receives a thorough sweat. Where there is no bathtub handy, then the patient, either all or a part of him, as

the case requires, may be wrapped in a sheet wrung out of water as hot as can be borne, and allowed to remain until he is relieved.

The hypodermic injection of one-eighth grain of sulphate of morphia is excellent to assist in relieving the cramp. It may be necessary in extreme cases to repeat this in from one-half to three-fourths of an hour.

Simply using brisk friction over the parts by rubbing with the hand, or a piece of flannel is often sufficient.

A piece of cloth or flannel the size of the palm of the hand, wet with chloroform and held on tightly, by the palm of your hand, over the cramping portion until it gets so hot the patient can stand it no longer, and repeating this as often as necessary, even allowing the patient to inhale a few whiffs of the chloroform occasionally, is an excellent mode of treatment.

Where the cramp is over any large surface the patient should take liberal doses of the antispasmodic drops mentioned under general formula in this work.

Where cramp continues to return through a lengthened period of time, we must look for its cause in the system and remove it if we would cure the patient.

SCURVY.

Scurvy is a depraved condition of the system and blood, arising from a lack of the succulent materials derived from a sufficient amount of fresh vegetable diet. The proper balance of vegetable and animal diet must be preserved, otherwise disease is always the result.

Symptoms.—General weakness and debility, with exhaustion upon ordinary exertion always attends scurvy.

Purplish minute flecks at first appear at the roots of the hair, covering the body.

These purplish spots enlarge from the size of a pin head to the size of a pea.

Sometimes effusions of blood occur under the skin to a greater or less extent over the body,

The complexion changes to an earthy or sallow hue.

The patient suffers from much languor and lassitude.

The spots and blotches which form upon the body are apt to degenerate into intractable ulcers of greater or less extent.

The gums become spongy and break down easily and bleed freely. The breath becomes foul.

Pains in the legs, back and joints come on early.

The appetite is variable and the patient generally craves something sour.

In severe cases the disease attacks the bones causing them to swell, soften and break down.

The action of the heart is slow, weak and irregular. The temperature of the body is generally one or two degrees below normal.

Embolism is liable to occur at any point, but more particularly in the lungs and spleen.

Treatment.—Inasmuch as scurvy is caused by a lack of proper vegetable diet, we must look for a *cure* by restoring to the system the elements which it lacks. By doing this a cure may be confidently expected in nearly all cases.

The patient should be allowed an abundance of green vegetables, of every description. Acid fruits and pickles prepared in apple cider vinegar are also of the first importance. The patient should be allowed all the lemonade he will drink.

Fresh beef, fresh mutton, game, eggs, fresh fish, milk, buttermilk, etc., are all good.

Let one point be remembered, viz.: the patient must have an abundant supply of fresh vegetables and fruits.

If the patient's mouth is so sore that he cannot eat meats, he can be allowed a liberal supply of soups and broths made from fresh meats of the kind mentioned above.

Where ulcers occur, they may be washed with a solution containing ten grains of nitrate of silver to the ounce of water, and the ulcers may afterwards be treated on general principles. Where internal hemorrhage occurs, the patient may use half teaspoonful doses of fluid extract of ergot, or of tincture of chloride of iron once in four hours until the hemorrhage stops.

GOITRE, OR BIG NECK.

Goitre is an enlargement of the thyroid gland. The enlargement may exist in either lobe or in the isthmus of the gland, (which is situated over the wind pipe), or in all of them combined. The causes of goitre are very obscure. It occurs in both men and women. It often attains to a great size, when it becomes a source of danger to life through its pressure upon the wind pipe, and the strangulation of the circulation of the neck. It is apt to cause rawness of the throat, accompanied by hoarseness.

Treatment.—Treatment should be commenced as soon as the slightest enlargement begins to appear, as the disease can then be generally checked without much trouble.

Iodine in some form is the greatest agent which we have. Pressure sometimes acts well. The compound solution of iodine is perhaps the best form in which iodine can be used. The patient may commence with five drops of this solution in a half glass of water, either before or after each meal. The dose may be gradually raised to twenty drops three times a day, if the patient can stand that much. He should gradually increase on the remedy for two or three weeks before the full dose is taken, and he should rest entirely from it one week out of four. The goitre may be rubbed externally with the following:

Iodoform, $3\frac{1}{2}$ drachms.

Menthol, 3 grains.

Benzorated lard, 2 ounces.

Mix, and rub over the goitre thoroughly twice a day. This can be soaked in before a fire for five or ten minutes to good advantage. Some of it should be spread upon a piece of old linen or muslin and worn over the goitre during the day. A piece of greased paper or oiled silk may be worn over all, so as to keep the medicine on.

Where the patient becomes pale and reduced he may use syrup of iodide of iron in fifteen or twenty drop doses three times a day. And he may also use a teaspoonful of cod liver oil at meal time.

Where the goitre is small and soft a very good treat-

ment is to give fifteen drops of fluid extract of ergot three times a day. The goitre may be painted with collodion once or twice a day for the purpose of exerting pressure upon it. The collodion is liable to make the skin tender. It may be left off when it does this until the skin heals and then be re-applied.

Hypodermic injections into the substance of the enlargement of such agents as iodine, ergot and carbolic acid have been made with varying degrees of success and are worthy of a trial.

SCROFULA.

I regard scrofula as a disease of nutrition and malassimilation as well as *faulty heredity*. The causes which lead to this may be legion and are of no interest to the casual reader. With proper treatment the disease may be kept in check, but it is very doubtful as to our preventing its hereditary tendency.

Symptoms.—The disease generally manifests itself by hard lumps, which first form in some of the lymphatic glands either on the neck, under the arms, in the groins, or along the course of the lymphatics in other parts of the body. These nodules or hard round lumps may remain small, or grow very slowly. They are not apt to be sore until they are ready to suppurate and break down. They may be known only as hard knots for months or years, causing no uneasiness on the part of the patient or of friends. Finally, they begin to get red and inflamed, or suppurate and break down, with but little signs of inflammation. They may form from the size of a pea, to the size of a cocoanut, before they break down. The matter which they discharge may be thin and yellowish in color, or it may be of a dirty cream color, or it may be of a greenish color. It never looks like healthy or sainous pus, so far as I have seen.

When these nodules or tumors break, they show but little disposition to heal.

After the first discharge they generally emit a thin, grumous, unhealthy or cheesy looking fluid.

There may be only one or a score of these, either in the same neighborhood or in different parts of the body. These discharging abscesses heal, if at all, very slowly, leaving behind them unsightly scars and indurations. They may heal for a time, breaking out again on or near the old site of their former eruption, leaving the part a mass of scars. Sometimes ulcers, formed by the discharge of an abscess, leave behind them an imperfectly healed opening, which forms a fistula, which discharges an ichorous material, which may continue to flow for months or years.

Scrofula may lead to large, ragged-edged and indolent ulcers of the various parts of the body, even the bones being at times attacked.

Treatment.—The first thing to be thought of in scrofula is to correct the hygiene. The patient must have regular baths, fresh meats, vegetables, pure milk, in short, a good sound and wholesome diet.

Next the patient must have proper air, sunshine, clothing, exercise, healthy sleeping apartments, proper bathing, etc.

As to medicine for an adult, give him the following: Take ten grains of powdered phosphate of lime in one half glass of milk, which is about one-half cream just after each meal.

Before meals give the patient a dose of the wine of pepsin mentioned under general formula.

Cod liver oil in teaspoonful doses at meal time, is also good.

An adult may also take a half teaspoonful of syrup of iodide of iron three times a day.

Open all abscesses and treat the cavities with the following solution until they are healed.

Carbolic acid, 80 grains.

Rain water, 1 pint.

Mix, and wash out the ulcer four or five times a day.

DROPSY.

Dropsy consists of an effusion of serum through the blood vessels which finds its way either into the cellular

tissues or into the serous cavities of the body. It is rarely ever a primary affection, but on the contrary is, as a rule, the result of some wasting chronic disease.

Dropsy is liable to be found in any of the serous cavities of the body, as in the peritoneum, when it is called *Ascites* or *Abdominal dropsy*, or the pleura, when it is called *Hydrothorax*, or the substance of the lung itself when it is called dropsy of the chest. When dropsy occurs in the cellular tissue it is known as *Anasarca*. When it occurs within the Pericardium, it is known as dropsy of the heart.

Symptoms.—The presence of dropsy is known by swelling of a part which presents certain characteristics depending upon the locality in which it is situated.

Dropsy of the abdomen may be known by placing the hand to one side of the abdomen and tapping upon the other side of the abdomen with the fingers of the other hand, when if much effusion be present, the fluid can be felt to fluctuate. It may also sometimes be heard. When the peritoneum is only partly full of water, the patient should stand while being examined, as thus the fluid will settle to the lower part of the abdomen where it can be detected. A practiced hand will always detect a fluctuation in abdominal dropsy.

Effusions in the pleura, where extensive, cause *bulging* of the *interspaces* of the ribs, they prevent or dull the sound of the respiratory murmur of the lungs to such an extent that they can but faintly, if at all, be heard. They also cause *dullness* on percussion over the lungs. Sometimes the pressure against the lungs caused by a distended pleura causes *friction* sounds as they press against the lung.

Dropsy of the extremities or of the cellular tissue may be known by leaving a more or less permanent dent after pressure by the finger. Sometimes a moderate amount of dropsy in the hands, feet or face is only shown by a slight puffiness, but leaves behind no dent. This may be seen in chronic kidney troubles.

Treatment.—As already stated, dropsy as a rule, is the result of some other disease and unless the effusion becomes so great as to interfere with the progress of the

case or to endanger life, no especial attention need be paid to it. But if the legs swell until they are about to burst, or the abdomen until the weight is almost unbearable, and all the internal organs are interfered with in their functions, or the heart until it is almost arrested in its motion by the crowding fluid, then something must be done *at once*. No time is to be lost.

The skin, bowels and kidneys may be called upon to aid in throwing off the water.

The patient should use the vapor or the spirit bath, which are mentioned in this work freely. One of these should be used every day.

The following is a good preparation to reduce the fluids of the body.

Compound powder of jalap, 1 ounce.

Bitartrate of potash, $\frac{1}{2}$ ounce.

Pulverized squills, $\frac{1}{4}$ ounce.

Pulverized jamaica ginger, $\frac{1}{4}$ ounce.

Mix, triturate, and make into twenty-four powders. Give a powder in warm water once in four hours during the daytime until they physic thoroughly. If the stomach and bowels are not irritable, this may be repeated every day until the dropsy is sufficiently reduced.

Where the amount of fluid in the abdomen or legs becomes enormous, tapping must be resorted to. The services of a surgeon will be required here.

While means are being used to carry off the excess of fluids, we must not forget to give proper attention to the original disease upon which the dropsy depends.

Pilocarpine is a new remedy which has worked wonders in dropsy during the last few years. But this remedy is so powerful that a physician should administer it.

WOUNDS, INJURIES, HEMORRHAGES, ETC.

As this work makes no pretensions to surgery, I shall only attempt to give a few practical hints which I trust may be of value in case of an emergency.

First. When a person gets seriously injured, more or less shock is sustained by the system. If the person is uncon-

scious, the first thing is to restore consciousness. He should be laid in an easy position and the clothes loosened about his throat or any part of his body where they are tight. A liberal dose of whiskey and water may then be poured down his throat if he can swallow. This may be repeated as often as necessary. He should have plenty of fresh air. Fan him if necessary. Don't handle him roughly. An eighth to a sixth of a grain of sulphate of morphia combined with an eightieth of a grain of sulphate of atropia injected hypodermically into the patient's arm, is a powerful agent to arouse the patient. Cold water may sometimes be dashed into the patient's face with the effect of bringing him to consciousness. In any serious case a physician should at once be sent for.

In wounds when the skin or deeper tissues are cut or lacerated we must do something to stop the flow of blood. Where an artery is cut, which will be known by the blood spurting out in jets with every beat of the heart, we must at once bring pressure to bear upon the blood vessel on the side of the wound next to the heart. The finger may be fearlessly pressed down over the artery until the blood ceases to flow. If the wound be upon a limb, a handkerchief or cord may be placed around the limb above the wound. The cord may be tied loosely around the limb, and a stick thrust through it and twisted until the cord is drawn so tightly about the limb that no blood will flow. This may be left on until a physician shall come, who will pull out the end of the bleeding artery with a tenaculum or artery forcep, so that he can tie up the artery. Where only a vein is wounded, the ligature may be placed about the limb on the side of the wound *farthest* from the heart. The wound should be thoroughly washed out with clean water if it have any dirt in it.

Third. If the wound be small and unattended by dangerous hemorrhage, wash it out thoroughly with cold water to which is added one drachm of carbolic acid to the pint. Then bring the parts closely together and hold them there by bandages, or by strips of adhesive plaster placed in different directions across the wound. If the parts suppu-

rate while healing, wet them every three or four hours with the above solution, after they have been thoroughly syringed out with castile soap and warm water. The water with acid in it may now be used warm.

Fourth. If a limb be broken, support the patient's strength with whisky or other stimulants until the doctor comes. If the broken bone sticks through the skin, wash off all dirt and remove clothing or other substances which adhere to the wound in any way.

If there be no external wound straighten out the limb as well as you can, without using any violence, and keep the patient as comfortable as you can until the doctor arrives.

STINGS AND POISONOUS BITES.

Where a patient has been stung by any poisonous insect, he must at once remove the sting if it remain in the wound.

He should then at once apply spirits of ammonia, or a solution of common soda in water as strong as it will dissolve, or dermador.

I prefer the latter decidedly. I have never seen dermador fail in a single instance to almost immediately arrest the pain and inflammation arising from a sting.

Dr. John M. Scudder recommends binding slices of raw onion over the wound.

I have never seen this used, but he recommends it highly in his work on the practice of medicine.

A powder of opium, pulverized lobelia seed and common soda, equal parts, sprinkled over the face of an elm or flax seed poultice and applied is also good. This poultice should be kept moist.

Where the person is bitten by a serpent, the poison, if any remain outside, should at once be wiped off. Then an incision should be at once made over the seat of the bite, causing the blood to flow freely.

Then a cup should be placed over the wound and be renewed until several cupfuls of blood have been withdrawn. Where no cups are at hand, or the person does not

understand their use, let the mouth be placed to the wound and draw out several mouthfuls of blood.

The person who sucks should have a sound mouth. There should be no cracks upon the lips, sores in the mouth, or on the tongue, or any abraded surface with which the poison virus of the serpent can come in contact. After the blood has thus been drawn out, the wound may be filled for from five to eight seconds with carbolic acid as strong as it will dissolve. Then the acid should be poured out, and the wound dressed with the cosmoline ointment mentioned under the head of general formula.

Internally, I am compelled from past experience, to recommend good whisky. The patient should use all the whisky that he can stand, up to the point of intoxication.

When the patient begins to feel the whisky too much in his head, it may then be checked for a while. But I think it best to keep the patient just as full of whisky as he can comfortably stand it.

The patient should have at least two thorough sweat baths a day. He can take either the vapor or the spirit bath, as mentioned in this work. This will have a powerful tendency to throw out the poison. He should be fed a very liberal allowance of the beef tea, or of the beef juice, mentioned under General Formula, in this work.

The action of the heart may be maintained by two to three drop doses of tincture of digitalis, given once in two or three hours during the daytime.

Where the blood poison becomes intense, I should recommend that a teaspoonful of chlorine water be given in one-fourth glass of water once in three hours.

When the patient becomes exhausted, he may use the tonic pills, mentioned under general formula. He should also have a liberal allowance of beef tea. Solid food should not be used. A physician should always be called in for cases of this kind.

DROWNING.

The person should at once be laid down in a warm, dry place, face downward.

Open the jaws and pull the tongue forward, if possible, allowing the water to escape and air to enter the lungs. This can generally be accomplished by allowing the patient's forehead to rest upon his arm as the mouth generally opens and the tongue falls forward when the patient is in that position. Assist the patient to wipe out the mouth with your finger or a handkerchief.

If the patient does not breathe, pursue the following course. Turn the patient over on to his right side, at the same time this is done lift his left arm above the head. Allow the patient to remain in this position about one second, then turn him back upon his face again at the same time bring his left arm down tightly across his chest.

The above manouver will cause air to enter the lungs, and will also expel it again, thus imitating breathing. The manouver should be gone through with about fifteen times to the minute for a man, about seventeen to the minute for a woman, and about twenty times to the minute for a child under one year old. Keep up this artificial respiration for two hours *unremittingly*, if the patient do not come to sooner.

The Author brought an infant to, by the above method, after respiration had practically ceased for over an hour. He persisted in its use long after the parents begged him to let the little sufferer alone as they thought it dead, and he was rewarded by seeing the little sufferer regain consciousness.

The patient's clothes should be removed as soon as possible, and a warm blanket or other covering thrown over him.

His body should be thoroughly rubbed by the hands of the bystanders. It should be rubbed upwards below the heart and downwards above it.

The patient should be placed in a warm room as soon as possible if the air is chilly. The negative pole of a faradic battery may be placed to the back of the neck close up to the head, and the positive pole be placed over the pit of the stomach and a moderate current be used for about ten

seconds. This may be repeated once in ten minutes. It can be used while artificial respiration is being kept up.

After breathing is restored pack the patient in hot blankets surrounded by hot bricks, stones, jugs of water, etc.

When the patient can swallow, pour down some brandy or whiskey weakening it with water if it is too strong for him to swallow. A warm whiskey sling is very good. Ginger tea or any stimulant may be used where there is no whiskey at hand.

Cautions to Bystanders.—1. Send at once for a physician and dry clothing. 2. Do not allow the body to lie on the back. 3. Don't inject tobacco or any poison into the bowels. 4. Don't keep the patient long in a hot bath. 5. Don't roll the body on barrels. 6. Don't allow persons to crowd around so as to shut out the fresh air.

The foregoing remarks are taken in part from Dr. John King and Marshall Hall.

APPARENT DEATH FROM INTENSE COLD.

The patient should at first be taken to a room that is but little, if any, above freezing point. He can at first be rubbed briskly with dry snow or very cold water for ten or fifteen minutes. Then rub the body briskly with dry flannels or the naked hands, several persons rubbing at once until the body is red all over. Be careful not to rub the skin off or to bend any part which is frozen stiff, as this would break it.

Be exceedingly cautious about taking the person into a warm room too soon. If the patient cannot breathe, use the same means for artificial respiration mentioned under the head of drowning.

When the patient gets so that he can swallow give whiskey, brandy or other suitable stimulant. Persevere for hours before you give up. Success may crown your efforts at the last moment. Remarkable instances are on record where, after they were thought to be frozen to death the patients were resuscitated.

BURNS AND SCALDS.

When slight, these injuries may be dressed in cosmo-line ointment. Dermador rubbed over the parts is an excellent remedy to stop the burning where the skin is not broken. Turpentine is also good.

In case the patient is scalded, cold water, if any be at hand, should be dashed on the patient to cool off the part. If he is scalded through the clothes, the clothes must at once be drawn away from the body and cold water dashed on to keep the burn from extending any deeper into the tissues.

If the burn is serious, the patient always suffers from a greater or less degree of collapse, which must be met by stimulants. Whisky and opium are by far the best.

The patient, if an adult, may be given in such cases, from one-eighth to one-fourth of a grain of sulphate of morphia and sufficient whisky or brandy to arouse him.

After reaction sets in, then the fever which follows, may be treated with the fever drops mentioned under general formula.

The patient's strength must be supported by a very liberal allowance of the beef tea, or the beef juice, mentioned under general formula. He may also be allowed all the sweet milk that he will drink, and ten or twelve ounces of good whisky a day to support his strength.

The wound may be dressed in carron oil, which is a combination of lime water and linseed oil. This should be spread on a cloth and kept over the burn to keep out the air.

Where the burn is large, only a small portion of the ulcer should be uncovered at a time to be cleansed and have the dressing renewed. This treatment may be kept up until the ulcer is healed. In the later stages of the case, tonics must be used where the patient's strength is exhausted. The tonic pills, mentioned under general formula, may be used.

A physician should at once be called, in case of serious burns or scalds.

FELON, OR WHITLOW.

A felon is an inflammation of the flexor tendons and sheaths of the fingers, frequently also attacking the periosteum and the bone itself.

Symptoms.—A *sticking* sensation upon pressure over the part, is generally the first symptom of a felon. This is soon followed by a sense of heat in the part. Pain soon sets in and the swelling increases. The pain may become so intense that the patient is compelled to walk the floor day and night. The felon afterwards suppurates.

A felon, even after it is opened, is apt to be very slow to heal. The very bone of the finger may decay so that the patient will loose one or two joints of the finger. Weeks of misery may draw their slow lengths along, until the poor sufferer is almost crazed in mind, and exhausted and emaciated in body.

The cause of a felon is nearly, if not always, a bruise of the tissues of the part.

Treatment.—As soon as the first symptom of a felon is observed, the part should at once be refrigerated by allowing cold water (ice water is the best), to fall upon it from a foot or so in height until it is thoroughly cooled off. This must be repeated as often as pain or heat return. This will nip a felon in the bud every time.

If matter has already formed, the part must be laid open to the bone with a knife. Wash the wound out once in three or four hours with water, to which one drachm of carbolic acid is added to the pint. Afterwards apply an elm or flax-seed poultice, over which is thickly sprinkled the following powder.

Pulverized lobelia seed, 1 ounce

Pulverized opium, $\frac{1}{2}$ ounce

Pulverized bicarbonate of soda, $\frac{1}{2}$ ounce

Mix, and sprinkle thickly over the elm poultice and apply. Keep up the above treatment until it is healed.

BOIL, OR FURUNCLE.

A boil is an abscess with well defined margins, which after a longer or shorter period of swelling and inflammation, discharges a whitish or yellowish matter. They are sometimes quite painful and cause considerable fever.

Treatment.—The treatment prescribed for felon is entirely appropriate here.

Where the patient is subject to boils, he must look after his general health. The wine of pepsin before meals, and the compound alterative syrup, are both good, and may be used as directed under general formula.

FROST BITE.

When any part is frozen, it should be dipped in snow water or ice water for some minutes until the frost is drawn out. Great care must be used not to expose a frozen part to a warm temperature until the frost is all drawn out.

Treatment.—Place the frozen part into ice or snow water until the frost is drawn out so that the parts are soft and pliable and then dress the part in a cloth wet with turpentine or dermatol. I prefer the latter if blisters form upon them. Treat any ulcers which form beneath the blisters with carbolated cosmoline.

Cleanse the ulcers each time with hot soap suds before applying the ointment. Use only castile or some fine soap to make the suds.

CHILBLAIN.

Chilblain is caused by sudden changes of temperature, and consists of swellings upon the soles of the feet or the palms of the hands, and is sometimes met with in the face. The swellings may be very painful and tender, and sometimes the itching attending it is intolerable.

Treatment.—Soak the part in water as hot as can be borne for a few minutes, then apply oil of turpentine. Do this two or three times a day. This has always been sufficient in my experience.

Dermador may be used in place of the turpentine, or the parts may be bathed in water, to which two drachms of carbolic acid have been added to the pint.

Cloths wet with any of the above may be laid over the chilblain.

RING WORM.

This disease is so well understood that no description is necessary. It may appear upon any part of the body, but it is more frequent about the head, face and arms.

Treatment.—Secure the following :

Acetate of copper, 10 grains.

Cosmoline, 1 ounce.

Mix, and rub on the ring worm three times a day.

The following may be used :

Oxalic acid, 10 grains.

Water, 1 ounce.

Paint the parts three times a day : or,

Take compound tincture of iodine and paint the parts with it twice a day.

TETTER.

This disease causes the palms and sometimes the back of the hands to become brittle, and tender and cracked.

Treatment.—For this use the following :

Carbolic acid, 15 drops.

Fluid extract of rumex crispus, 2 ounces.

Mix, and rub over the affected parts three times a day.

This will cure the disease *every* time.

BUNIONS.

A bunion consists of a painful swelling at the joint where the great toe joins the foot.

Treatment.—Pour water as hot as can be borne over the bunion for four or five minutes. Repeat this once an hour until all inflammation is gone. Avoid tight boots or shoes. Give the foot complete rest. Wear a soft slipper until the joint is well. Kerosene oil is an excellent local

application. Where the bunion has become permanently enlarged, it had better be cut out.

CORNS.

A corn consists of a callus upon some part of the foot or hand, and is caused by the constant rubbing or pressure upon a part.

Treatment.—Remove all causes and apply the following:

Salicylic acid, 20 grains.

Ex. cannabis indica, 1 drachm.

Collodion, 3 drachms.

Mix, and rub on the corn morning and evening. Bathe the feet in hot water every night. When the corn drops out, stop using the medicine.

WARTS.

To remove a wart, first cut it off even with the skin and put a drop of carbolic acid on the roots and let it burn as long as it will. Be cautious not to use too much carbolic acid as it would make an ugly burn.

POISONING.

It is not practical for the general reader to enter into a full detail concerning poisons and their antidotes. Only a few general directions, therefore, will be given.

When a poison is swallowed, one of two things must at once be done, viz: the poison must either be neutralized or be thrown out of the stomach. And inasmuch as the variety of poisons is so great and their antidotes so numerous that none but an expert chemist, surrounded by all the antidotes known, could be prepared to neutralize every poison which might be swallowed, we shall therefore content ourselves mainly in the present instance by giving the patient a few practical hints about getting the poison out of his stomach. This is sometimes a difficult task to accomplish. One thing is certain, viz: *a physician and a stomach pump*

are always in order. But these are often so far away as to be of no practical use to the sufferer.

When a poison is swallowed, if it be of an *acrid* nature, four or five raw eggs should at once be swallowed. Where eggs cannot be had a pint or more of sweet milk may be drank. Then the patient should swallow a heaping teaspoonful of powdered mustard. If this don't vomit him soon he may swallow another. Thirty grains of sulphate of zinc, or ten grains of sulphate of copper, either of them form a good emetic, or fifteen or twenty grains of the emetic powder, mentioned under general formula, may be used. They should be given with a half glass of water, and some water given after each act of vomiting. One-eighth grain of apomorphia injected into the arm forms a very certain emetic.

Some patients by drinking a quart of either warm or cool water, and then tickling the inside of their throat with their finger can vomit almost instantly.

This last method is by far the best of all, where the patient can use it.

After the patient has vomited it is well to drink one large draught of water after another, vomiting each up by the same method, viz.: by running the finger down the throat until the stomach is thoroughly washed and cleansed of all offending or poisonous substances.

If the poison has left depressing effects on the system, this must be met by liberal doses of stimulants. Whiskey or brandy well diluted in water are perhaps the best.

P A R T I I I.

DISEASES OF WOMEN.

Woman leads a double life, viz.: That of a human being, and added to this the life of a mother. Hence, she is subject to many ailments to which man is a stranger; and yet, notwithstanding all this, nature is so provident in all of her arrangements, that the life of woman is nearly, if not quite, as long as that of man.

I shall attempt to make no display in treating of the disease of women. I shall try only to be very earnest, very practical and very brief.

MENSTRUATION AND CONCEPTION.

Menstruation consists of a periodic flow of a bloody discharge from the uterus.

An ovum or egg is discharged from the ovaries, which passes through the fallopian tubes into the womb, and is thus discharged through the vagina into the outer world. Semen from the male coming in contact with this ovum is what causes conception. The ovum generally escapes in from three days to two weeks from the commencement of menstruation. The ovum may sometimes be discharged into the womb three or four days before any show of blood in menstruation.

At any time that the ovum is in the uterus or vagina, the female may become pregnant, that is to say, for three or four days before the menses appear, and for about two weeks after they disappear, pregnancy is liable to occur.

The disorders of menstruation are generally the earliest which are peculiarly incident to the female, and they should be carefully studied.

Mothers should teach their daughters that from the eleventh to the fourteenth year they will be subject to a bloody discharge which comes once a month and lasts for

several days. They should teach them that as soon as they come on they should wear a cloth to protect their person and clothes, and that they must avoid all exposure to taking cold, etc.

When the menses appear a change comes over the nature of the girl. She becomes modest and shy—in short, the responsibilities of life first dawn upon her and she begins to fully realize for the first time that she is a woman. Her demeanor now becomes changed toward the opposite sex, and she soon begins to have the desire which nature implants in every properly formed human being, for a life partner. Her steps must be guarded now—her every association watched. Mother, you are her guardian angel. God pity the poor orphan girl!

There are a number of diseased conditions which attend the course of menstruation. These we will now consider:

I should have remarked earlier that menstruation generally lasts about thirty years from the time that it begins.

AMENORRHŒA, OR ABSENCE OF THE MENSES.

This term is applied to those cases in which the menses fail to appear at the age of puberty.

Causes.—There are several causes for the non-appearance of the menses at the proper age. These may be summarized as follows: 1. Absence of the ovaries. 2. Absence of the uterus or womb. 3. Closure of the mouth of the womb. 4. Absence of the vaginal canal. 5. An imperforate hymen. 6. Some chronic and wasting disease, such as scrofula, cancer, chronic disease of the liver, consumption, etc.

Anything which exerts a powerfully depressing influence upon the system may retard the menstrual flow beyond the time when the menses should make their appearance. The causes mentioned under the first five heads above can only be properly attended to by the surgeon, and only the surgeon can detect them when they exist.

Any medicine given to promote the flow of the menses while the above causes exist, could only be of immense damage to the patient. I shall, therefore, be compelled to

advise the parent to seek the aid of some competent surgeon for the correction of this trouble. Where any inter-current disease is the cause, that may be treated according to the principles elsewhere laid down in this work.

SUPPRESSION OF THE MENSES.

This may be caused either by taking cold, by pregnancy, by age, or by some wasting and exhausting disease.

Treatment.—No treatment is generally necessary, except where the patient has taken cold, and sometimes when the menses are checking up too rapidly at the menopause.

The treatment may be the same in both cases.

The patient may take hot sitz, vapor or spirit baths about the time for the menses to come on. One of these may be taken at this time, on going to bed. Take, also, on going to bed, a five or six grain dose of socorotina aloes. Also take from one to two ounces of the best Holland gin. Then go to bed, and cover up warm, and sweat. The next day take three four-grain capsules of sulphate of quinine. This round of treatment need not be repeated more than once. If the menses do not then come on, the patient can attend to the general health until the next period for the menses to come around, then it can be repeated if necessary.

Electricity is a great aid to bring on the menses. Place the negative pole just above the pubes, and the positive pole just above the sacrum. Allow the current to pass through for from three to five minutes. This can be done every other day until within two days of the time for the menses, when it can be done three times a day until the time of the menses has arrived.

PAINFUL MENSTRUATION, OR DYSMENORRHEA.

Sometimes the menses are very painful. The pain may come on before, during or after the menses. It is often owing to a congestion of the parts, but is sometimes owing to a narrowing of the canal of the neck of the womb, and when this last is the case surgical interference is required.

Treatment.—The patient should take frequent hot baths of some kind during the painful period. I prefer the hot air bath as described in this work. It is a powerful agent of relief and may be used two or three times a week between the menses, and once a day during the painful period.

Internally the patient may keep the bowels loose with seidlitz powders.

The following powder may be used to relieve the pain:

Camphorated dover's powder, 40 grains.

Sulphate quinine, 20 grains.

Sulphate of morphia, 1 grain.

Mix, triturate and make ten powders.

Take from two to four powders a day as needed.

Cloths wrung out of water as hot as can be borne and laid over the bowels are excellent. The cloths should be large so as to hold heat.

Hot foot baths are always in order in this disease. Whisky is also excellent, but the patient must be careful not to form a habit of drinking it as this trouble is liable to last off and on for years.

Where this disease is protracted a physician should always be consulted.

PROFUSE MENSTRUATION, OR MENORRHAGIA.

This consists of a too profuse discharge during the menstrual flux. Its causes are very numerous.

Treatment.—The tonic pill, mentioned under the head of general formula, may be used where the patient is reduced in strength.

The following may be used in all cases to check any excess of discharge of blood.

Fluid extract ergot, 1 ounce.

Tincture cinnamon, 1 ounce.

Syrup of sugar, 2 ounces.

Mix, and take from three to five teaspoonfuls a day as needed to hold the discharge in check.

Where the feet are inclined to be cold, they should be bathed in hot water and kept warmly clothed.

FALLING OF THE WOMB.

This consists of misplacement of the womb downwards, and is owing to many causes, many of which require the skill of an accomplished surgeon to overcome.

The most common causes of falling of the womb are, perhaps, increase of its weight or weakening of the broad ligaments which hold it in position.

Treatment.—The following washes are of benefit in this disease:

Tannic acid, 1 drachm.

Glycerine, 4 ounces.

Soak an oakum or cotton pledget with this, and introduce it into the vagina. Repeat this twice a day.

Bromo chloralum, 1 ounce.

Water, 6 ounces.

Mix and inject one-half pint three times a day.

The patient may inject three or four quarts of water as hot as can be borne, three times a day. This last is excellent to control any soreness or inflammation of the parts.

When the patient is weak, she may take the tonic pills recommended under general formula.

ULCERATION OF THE WOMB.

Ulcers on the womb are usually situated about the mouth of the womb and may, as a rule, be easily cured.

Treatment.—Ladies suffering from this trouble should abstain entirely from coition until they are cured. The following wash may be used until the ulcers are healed:

Fluid hydragis (colorless), 4 ounces.

Bromo chloralum, 4 ounces.

Sulphate of zinc, 2 drachms.

Carbolic acid, 2 drachms.

Rain water, 1½ pints.

Mix, and inject two ounces of this well up into the vagina three times a day. If the parts are foul from any discharge, first wash the parts thoroughly with warm water.

LEUCORRHEA, OR WHITES.

This consists of a discharge of a mattery nature from the womb or the vagina, or both. Sometimes the discharge consists of a thick, foul matter, and the odor arising from this source is sometimes almost unbearable.

Treatment.—The treatment given under the head of ulceration of the womb, is all that is necessary in this trouble.

ITCHING OF THE VULVA.

This itching is sometimes a very annoying trouble to the patient. It may extend up into the vagina, or may extend backward over the perineum.

Treatment.—This affection is often obstinate and quite difficult to cure. Any of the following prescriptions are good:

Common salt, 1 drachm.

Cosmoline, 2 ounces.

Mix, triturate and rub over the affected surfaces three times a day, or use the following:

Chloral hydrate, 2 drachms.

Glycerine, 4 ounces.

Mix, and rub on the itching parts three or four times a day. Where the itching is internal, the following may be injected into the vagina three or four times a day as needed:

Sulphate of zinc, 3 drachms.

Carbolic acid, 2 drachms.

Water, 1 quart.

Mix, and inject a small amount three or four times a day.

ACUTE INFLAMMATION OF THE WOMB.

This disease is generally caused by the patient taking cold during the flow of the menses. The cold checks the discharge, and the retained discharge exerts a poisonous effect upon the body of the womb, leading to inflammation. Sometimes the menses are retained in the womb owing to congenital closure of its mouth. In such cases they are

liable to not only lead to inflammation but to rupture of the body of the womb. Surgical operations or other physical injury may also lead to inflammation of the womb.

Symptoms.—The patient is generally taken with a chill which is followed by fever of greater or less intensity throughout the attack. There is always a good deal of pain referable to the region of the womb. The pain may shoot through from the lower and front part of the bowels to the sacrum. Pain is produced by pressing over the womb, or by pressure with the tip of the finger against the neck of the womb. There is an almost constant desire to pass urine, and its passage is attended with pain, and it is sometimes mixed with blood. There is apt to be griping pains in the lower bowels, with desire to stool. Standing, coughing, walking, and straining at stool, all increase the pain. Jar-ring, from any cause, produces pain in the womb. The inflammation is very apt to extend to the surrounding pelvic structures. The patient's stomach is very apt to be deranged, she may even vomit.

Treatment.—Where the patient's stomach is foul, it should at once be emptied by a light emetic of the kind directed under general formula.

The patient should then be placed upon the following fever drops:

Mother tincture aconite, 2 drops.

Tincture veratrum viride, 10 drops.

Water, 4 ounces.

Mix, and take one teaspoonful once an hour while the fever lasts.

The patient may be given four or five grains of camphorated dover's powder once in three or four hours, when there is much pain.

The bowels should be carefully evacuated with large injections of warm soap suds.

Five or six grains of pulverized lobelia seed, combined with a half grain of opium, may, with great benefit, be injected into the bowels once in three or four hours, while the symptoms are urgent.

Large cloths wrung out of water as hot as can be borne

should be constantly kept over the lower part of the bowels.

Where there is any foul discharge from the vagina it should be washed out frequently with warm water, to which one teaspoonful of carbolic acid has been added to each quart.

Injectons into the vagina of one or two quarts of water as hot as can be borne, three or four times a day, are an excellent measure to assist in reducing the inflammation of the womb. The general hot air or vapor bath are both powerful means of reducing inflammation. The sitz bath is also good in this disease.

The patient should be kept in a moist sweat all the time until the inflammation is subdued.

Great care must be used not to allow her to take cold.

If there are retained menses locked up in the womb for the want of an outlet, the neck of the womb must be dilated in order to allow their escape, as only this can save the patient.

The re-establishment of the menstrual flow is always a good sign.

CHRONIC INFLAMMATION OF THE WOMB.

Chronic inflammation of the womb is of very common occurrence, and as ordinarily treated generally lasts until the change of life is passed, and sometimes does not recover even then.

Causes.—Sometimes the chronic follows the acute form of the disease. It may be caused by getting up too soon out of child bed, too frequent coitus, misplacements of the womb, onanism, portions of placenta or blood clots remaining after labor, laceration of the neck of the womb, if it be extensive, will also cause it.

Symptoms.—The womb is always thickened and enlarged, and frequently misplaced, tender to the touch, and on pressure from the outside, etc.

The woman suffers from a sensation of weight or bearing down. She has more or less pain over the womb and over the sacrum. She may have pains in her thighs. She generally complains of a lame back. Coition generally

causes her pain. Derangements of the menstrual function are common. Profuse menstruation is quite common. Painful menstruation is also often met with.

This disease does not always interfere with pregnancy and child bearing. Sometimes child bearing aggravates it, and sometimes it cures it.

Treatment.—The patient should use one or two gallons of hot water as a vaginal injection morning and evening. The temperature of the water may be gradually raised while she is taking the injection, by adding hot water until it is as hot as she can endure it.

The patient may lie on the back while using the injection.

Between the injections of hot water, a pledget of oakum, as large as can be conveniently introduced into the vagina and up to the mouth of the womb, may be saturated with glycerine, and be introduced twice a day for a few days, and then rest a short time, and repeat as often as necessary. The glycerin acts as a hydragogue to the parts, draining them of their extra amount of serum, without impoverishing the blood. Thus the womb and all surrounding structures are relieved of congestion, and consequently inflammation.

The bowels should be kept regular with the laxative syrup, mentioned under general formula.

The patient should take a hot air or vapor bath three times a week.

Where the patient is weak a teaspoonful of elixir phosphate iron quinia and strychnia may be taken three times a day.

The patient should refrain from straining, heavy lifting, running sewing machines, running up and down stairs, sexual intercourse, or any thing that will invite an extra flow of blood to the parts.

ANTEVERSION AND ANTEFLEXION OF THE WOMB.

These are conditions in which the base or fundus of the womb is tilted forward.

Symptoms.—An increased flow of urine, straining dur-

ing the act of voiding urine, painful menstruation, and sterility, pain in lower part of bowels, pain in the sacral region, and straining at stool are among the symptoms which attend these misplacements.

Treatment.—The fundus of the uterus must be tilted back to its natural position, and the derangements which have led to it be corrected. A surgeon will always be required to do this.

RETROVERSION AND RETROFLEXION OF THE WOMB.

This disease may cause straining at stool, sterility, and other symptoms more or less similar to those mentioned under anteversion. The uterus turns back upon itself, instead of forward as in anteversion. A surgeon will not only be required to diagnose but to treat the trouble.

DISEASES OF PREGNANCY.

Pregnancy is a natural condition, and where all the surroundings are proper it needs no medicine.

But such cases are the exception, not the rule, and it is our purpose here to give a few practical directions for the care of the pregnant female.

A pregnant female should always be an object of the tenderest regard, for she is performing one of the most sacred functions of human life, viz: the propagation of our species.

The pregnant woman should avoid hard labor or heavy lifting, as by these means she is liable to produce miscarriage.

She may eat an abundance of healthy food. If she craves any special article of food, she should be supplied with it regardless of cost, if you would have healthy offspring. She may be allowed to follow her ordinary avocations (only avoiding straining, heavy lifting and too much exhaustion), until within a short period of full term, which is generally about nine months.

She should avoid riding in jolting vehicles, blows, falls,

etc. She should be careful to take all the sleep that she desires.

Where constipation exists she may use the laxative syrup mentioned under general formula.

For sour stomach a teaspoonful of common soda may be taken in half a glass of water when needed, or the patient may use carbonate of magnesia. This comes in cakes and the patient may chew and swallow enough to sweeten the stomach whenever needed.

When the face, hands and feet swell the patient should take frequent hot air or vapor baths as mentioned in another part of this work.

Where varicose veins occur in the lower limbs, then the limb may be tightly bandaged with a muslin cloth, commencing to bandage from the toes upwards; or a rubber stocking may be worn. Your druggist can obtain these stockings for you.

Where vomiting is excessive the following prescription may be used:

Oxalate of cerium, 40 grains.

Subnitrate of bismuth, 3 drachms.

Mix, triturate and make into 20 powders.

Dose: take a powder four times a day until the vomiting is arrested.

Lime water and sweet milk in equal parts, is also a good remedy for vomiting.

Where the patient suffers much with headache it is well to give her a hot air bath three or four times a week. She may also use such means as are recommended elsewhere under the topic of headache.

MISCARRIAGE.

By miscarriage we mean a premature evacuation of the contents of the womb during pregnancy.

Causes.—Falls, blows, strains, riding horseback, or in rough riding vehicles, exhaustion from overwork, fright, extreme sorrow, etc., are the most common causes of miscarriage. Some women are far more liable to this mishap than others.

Where the habit of miscarriage is formed, the woman must use unusual care.

Symptoms.—As a rule, the woman feels unwell, she may have received an injury of some kind, when pains of the bowels and back follow an injury, the patient must always be on the watch for miscarriage.

Sometimes the patient feels languid and depressed, pains come in the back and the lower bowels, and the patient may become chilly. If there is a show of blood in connection with the above symptoms, the patient may be sure that a miscarriage is close at hand.

Treatment.—As soon as the symptoms of miscarriage begin to show themselves, the patient must go to bed and keep warm.

The following medicine may be taken :

Camphorated dover powder, 30 grains.

Sulphate of morphia, $\frac{1}{2}$ grain.

Mix, triturate, and make into five powders.

Take one powder once in four hours, until the pains have stopped.

Black haw has, of late years, been highly extolled as a remedy in this trouble. A half-teaspoonful of the fluid extract may be taken in a little warm water half way between the doses of the above powder.

If the patient's feet are cold, they may be soaked in hot water.

If the patient has other ailments, they may be treated according to the principles laid down in this work.

SIGNS OF PREGNANCY.

There are many signs which indicate pregnancy. The signs of pregnancy are scarcely ever the same in any two women. Nearly every woman has some signs peculiar to herself, and after her first pregnancy, if she be a close observer, she can tell with tolerable certainty when she becomes pregnant again. It is impossible for even the most learned physician to be absolutely certain of pregnancy before the motion of the child is felt, and the motion of the foetal heart can be heard. Some symptoms, how-

ever, occur with tolerable uniformity, viz.: The cessation of the menses, morning sickness, or sickness upon rising from a reclining position, change of appetite, etc.

After three or four months the abdomen begins to enlarge, and milk begins to form in the breasts, and about the end of the fourth month motion is felt in the womb. This is called *quickenings*. The nipples now become darker in color, and the enlargement of the abdomen, with the cessation of the menses, and the general changes of the system, are generally sufficient to apprise the patient that pregnancy exists. It should not be forgotten, however, that some women menstruate during the full term of pregnancy, as well as after the birth of the child. Some women only menstruate during pregnancy.

LABOR.

The supreme effort of a mother's life is when she is bringing a child into the world. If there is any one place where she needs the highest obtainable skill, this is certainly the time. I, therefore, most unhesitatingly advise you to get the best physician that you can regardless of expense. You ask me why? You say have not thousands—nay millions, of mothers given birth to children safely without the aid of medical science? I can only answer that they have. But, on the other hand, let me say to you, that should any difficulties arise, during this trying hour, are you willing to risk the life of your beloved wife and child, to the hands of bunglers, where the very highest surgical skill is required? While your wife might get through safely with half a dozen births, are you willing to sacrifice her life, and possibly, that of your seventh child, to save a few paltry dollars? There are certain facts relating to labor, however, which it is well for all to know. These I shall endeavor to relate in as simple a manner as possible.

SIGNS OF LABOR.

It is well to know when labor has actually commenced, so that due preparations can be made.

Pains attended by more or less chilliness, with a frequent

desire to make water, are among the first symptoms of labor. The pains are of a cutting character and extend from the small of the back down across the lower bowels.

The mouth of the womb dilates and after a short time there is generally a show of mucus and blood.

If the finger be introduced up to the mouth of the womb, it will be observed that with every pain the womb feels harder under the finger, and the lips of the mouth of the womb become thinner under the finger. In *false pains* the lips of the mouth of the womb do not change, and the womb does not feel more tense during the pain. By observing the last named distinctions the difference between *false* and *true* pains can be detected. True pains always usher in labor. The patient may have several *false alarms* during the few weeks prior to the commencement of labor. *False alarms* are always accompanied by false pains. In true pains also the abdomen becomes *tense* and *hard* under the hand, whereas in false pains this does not occur.

STAGES OF LABOR.

There are three stages of labor. From the time that labor commences until the mouth of the womb is fully dilated, is the *first stage*, and from this time until the child is expelled from the uterus is the *second stage*, and from this time until the after birth and membranes are expelled from the uterus, is the *third stage*.

During the first stage the woman may be allowed to get up and down at will, or to assume any position which she may desire. She should not try to "bear down" during this stage, as it only wearies and can do no good.

During this stage suitable remedies, where necessary, may be used to dilate the mouth of the womb. An emetic, of the emetic powder mentioned under general formula, is perhaps the best. Doses of the emetic powder may be given once in fifteen minutes in a cup of warm water, until the system is thoroughly relaxed. There need be no fear of the emetic as it will do no harm. Its action in dilating the mouth of the womb may be assisted, where necessary, by

the sitz bath. The patient may sit in the bath fifteen or twenty minutes.

The patient may receive suitable nourishment such as beef tea, oyster soup, etc., during this stage. When she becomes cold and weak, she may have one or two table-spoonfuls of whisky in a hot stew once every two or three hours, or oftener if necessary. Two or three grains of quinine may be given once in three or four hours where necessary to warm and strengthen the woman. In the meantime taking suitable drinks of the composition tea mentioned in the general formula.

No ergot should be given during the first stage as it might cause a rupture of the womb by causing too powerful a contraction of its fibers before the mouth is sufficiently dilated to allow of the passage of the child.

The woman's feet must be kept warm if hot foot baths have to be called into aid. Where the feet are inclined to be cool, hot irons, etc., should be kept near them.

Second Stage.—The mouth of the womb is now fully dilated and if everything progresses favorably the labor will soon be over. If the position of the child is all right and the pains are feeble and insufficient, and the parts through which the child is about to pass are of natural size and in a good healthful condition, labor can often be very much expedited by giving a teaspoonful of fluid extract of ergot. This will not only expedite the completion of the labor but will materially assist in preventing hemorrhage after the birth of the child. During the second stage the woman may hold her breath during the pains and "bear down." A towel may be fastened by one end to the foot of the bed allowing the patient to hold the other end and pull during a pain, or an assistant may pull her hands, thus supporting her.

The woman should not be allowed to get up and roam around during the second stage, as the child is liable to come out suddenly and falling rupture the cord.

As soon as the child's head is out a careful examination should be made to see if the umbilical cord is about its neck. If it should be, it must be at once removed and the delivery

of the child be at once expedited by gentle traction on the head.

As soon as the child is born its mouth and nose should be at once cleaned out so that it can breathe. The cord should not be severed until the child breathes, nor until it quits pulsating, nor until it is tied. The cord should be tightly tied by a strong cord about two inches from the belly of the child. In case of twins both ends of the cord where cut should be tied. If the child is still born and does not breathe, a little cold water should be sprinkled upon it. If this does not arouse it the attendant may hold its nose and force wind down its throat, either by a bellows or by placing his mouth to the mouth of the infant and blowing. Where the bellows is used care must be exercised not to force the air so strongly into the lungs as to do violence to the infant. If these means do not restore the infant it may then be dipped into water which is a little above the temperature of the blood, allowing it to remain for a few moments, then lifting it out a few moments. This procedure may be repeated a few times. If no life is yet seen in the infant, artificial respiration, as recommended under resuscitation from drowning must be used and be persisted in, if necessary, for at least one hour before giving it up. During this manipulation the infant should be kept under a warm blanket and its body and extremities may be gently rubbed. After the cord is tied and the child breathes, it may be turned over to the nurse, and the attendant must then give his attention to the mother.

I omitted to state in its proper place that a very efficient method of stimulating uterine contraction and bringing on pains during the second stage is to rub the patient's abdomen briskly with the palm of the hand.

Third Stage.—It must be ascertained at once whether the mother is *flooding* or not. If she is, then the after birth must be at once removed, and efforts made to cause the womb to contract. No time is to be lost. A few moments of delay may cost the life of the mother.

The bowels should be rubbed briskly and the womb grasped firmly between the fingers through the walls of

the abdomen, thus causing it to contract. While this is being done on the outside, if the hemorrhage be alarming, one hand may have the fingers drawn together cone shaped, and be thrust up the vagina into the mouth of the womb; this has a tendency to cause the womb to contract. Allowing a dash of cold water to fall upon the woman's bowels from a height of two or three feet is also a powerful means of causing the womb to contract. Injections of water as hot as can be borne, into the womb are an excellent aid in causing the womb to contract. A free stream should be injected into the womb for one or two minutes. Care must be used to see that the nozzle of the syringe has entered the mouth of the womb, so that the hot water shall come in contact with the mouth of the bleeding vessels.

One or two teaspoonfuls of equal parts of fluid extract of ergot and tincture of cinnamon bark should be given as soon as flooding is discovered.

Where the flooding still continues, the following may be resorted to. Lower the woman's head and elevate her hips on pillows, etc., until they are about a foot above her head. Then tie a strong cord about each thigh. Run a stick through the cord after it is tied and twist it around until the cord sinks deep into the flesh. This will soon check the flooding. Keep the patient in this position until the womb is contracted, which may be known by the womb feeling like a hard, round tumor, in the lower part of the abdomen, of about the size of a cocoanut.

The woman may now be bandaged and have her clothes and bedding changed, being careful not to expose her to any cold air.

NOTE.—The reason that I have said nothing about the different positions of the child during labor is because it would be of but little if any practical value to those unacquainted with the anatomy of both mother and child. I will say this much, however, viz: There are four positions which the child presents at birth that are called *natural* positions.

They are the head presentation or where the head comes first, the feet presentation or where the feet come first, the

knee presentation or where the knee comes first, or the breech presentation or where the rump comes first.

If one arm, or one leg, or the back of the neck or the body present first at the mouth of the womb during labor then the service of a surgeon is required to turn the child or assist the exit of the child, otherwise it could not be born. For this and many other reasons I insist that, where it is possible, a competent physician must be called in to assist.

AFTER TREATMENT OF THE MOTHER

The mother requires very careful attention for one or two weeks after the birth of the child. By attending to this she may avoid not only serious relapses at the time, but she may avoid diseases of the womb, which might be a source of affliction to her for years to come.

The attendant must see that the patient passes her water regularly. The bowels can be moved every morning by an injection of as much warm soap-suds as the patient can retain. The vagina may be washed out every morning with a pint of warm water, to which is added two ounces of bromo chloralum and a half teaspoonful of carbolic acid. The vagina may be thoroughly syringed out with this. Where there is inflammation on the inside of the womb, the quantity of the fluid may be doubled and the inside of the womb also be washed out with it. This will require either a physician or an expert nurse. The woman should retain the reclining position while she is being washed out, using a bed pan to catch the fluid as it escapes from the vagina. Neglecting to keep the parts properly cleansed sometimes leads to inflammation of the womb and child-bed fever. The body should be kept properly cleansed by sponging it with warm soap-suds every two or three days. The patient's body should not be exposed to the air, but be sponged off under the covers, unless the weather, or the room be very warm. The patient's clothes may be changed when she is bathed. See that her clothes are thoroughly warmed and dried before she puts them on.

Every precaution must be taken not to allow the patient to take cold. The room must be kept warm day and night.

The temperature of the room may run down to 60° or 65° fahrenheit during the night, but should be kept above 70° fahrenheit in the day time.

The patient's diet should be light and easy of digestion for two or three weeks. For the first week she may use dry toast and tea, crackers, beef, mutton, or chicken broth, a little sweet milk, oat meal, mush etc.

If her stomach is very weak, she may take a small dose of the wine of pepsin mentioned under general formula three times a day.

Where woman has been subject to falling of the womb, she should remain in bed two or three weeks after labor, so as to allow the womb to undergo involution or reduction in size and weight before she stands upon her feet.

The *lochia* discharge, is a bloody discharge which lasts for from two to four weeks after labor. If it should become suppressed from taking cold, a hot air bath should be given once or twice a day until the lochia starts again. She may also drink freely of the composition tea, and take three or four of the tonic pills, mentioned under general formula, every day.

MILK FEVER.

There is generally more or less disturbance about the time that the milk begins to come into the breasts after the birth of the child. Chills, followed by fever, are common. The fever drops, mentioned under general formula, may be used. As a general thing if the breasts are drawn by a breast pump or by the child until they are kept empty, the fever is but slight. Should the fever be at all severe, it may be treated according to the principles laid down in this work for fever in general.

CHILD BED, OR PUERPUREAL FEVER.

This is a very fatal disease and sometimes occurs in epidemics. It is thought, by many high authorities, to be contagious. One thing is sure, viz: that a physician who has lately attended a woman suffering with it, should not

attend another labor for quite a prolonged period unless his person and clothing have been thoroughly disinfected.

The patient may also cause it by taking cold and arresting the lochial discharge.

A failure to keep the vagina and uterus cleansed and disinfected after labor may also act as a cause.

Symptoms.—The disease generally comes on in a few days after labor. As a general thing the woman is taken with a chill and fever of greater or less intensity soon follows. The pulse quickens, and soon runs up to 120 or 130 or more beats per minute. The patient suffers from pain in the lower part of the bowels. The lower part of the bowels soon become tender on pressure. Stooling and urination are often very painful. Headache, fast pulse with tenderness on pressure over the bowels, and the drawing up of the knees, are symptoms that are perfectly characteristic.

The patient is apt to vomit a good deal.

The external surface is not hot in proportion to the rapidity of the pulse and the internal fever.

The tongue is generally heavily coated with a white coat at first, but the coat turns brown as typhoid symptoms appear. The breasts become soft and flaccid, the lochial discharge is checked and the secretion of milk, if it has been started, is checked.

Dizziness and delirium are common. The bowels become tympanitic and swollen.

During the later stages of fatal cases, the patient is apt to vomit dark looking material. The same kind of material may also be passed off by the bowels.

The patient, in fatal cases, may die in from twenty-four hours to ten or twelve days.

The symptoms of general collapse generally precede death.

Treatment.—As soon as pain accompanied by tenderness on pressure over the lower part of the bowels, with the fast, hard pulse, and headache appears, especially if these symptoms are accompanied by chills, followed by fever, we know what we have to contend with, viz.: child bed, or

puerperal fever. No time is to be lost. The treatment must be heroic.

I want to be distinctly understood regardless of opposition or prejudice to the contrary that lobelia stands at the *head of the list*, in arresting this disease in its first stage. As soon as the above symptoms appear the patient must be rapidly placed under the full influence of lobelia. The lobelia may be used as follows:

Take pulverized lobelia seed two heaping teaspoonfuls; bicarbonate of soda (this is common baking soda) one heaping teaspoonful, and put them into a half pint of blood warm water. Stir and give tablespoonful doses once every half hour until the patient is thoroughly relaxed. If once every half hour is not often enough to relax the patient by the time two or three doses are given, it may be given as often as once in ten minutes if necessary until the patient is thoroughly relaxed, the body in a profuse and warm sweat, and the tenderness over the abdomen *entirely* gone.

The above will vomit the patient freely and make her feel very sick but this need not scare you. The treatment is pre-eminently safe unless the patient is a sufferer from organic heart disease.

Between each dose of the lobelia the patient may take two or three swallows of the composition tea mentioned under general formula. The composition tea will stimulate and throw the blood to the surface and assist in relieving the internal congestion and inflammation.

When the fever and soreness on pressure over the bowels are reduced then the lobelia may be stopped. Then give the patient six grain doses of the camphorated dover powder with two grains of sulphate of quinia once in four hours until all danger of a relapse is removed. The patient may be given some beef tea a short time after the emetic, and her surface may be sponged off with hot water under the bed clothes, being careful not to allow any cold air to strike her body. Keep the room warm. If the pulse begins to get hard and fast again, then twenty drops of tincture of gelsemium with one drop of tincture of aconite, may be given once an hour until the eyelids droop, then less must

be given. Keep the feet warm if necessary by hot irons, etc., to them. Cloths wrung out of water as hot as can be borne should be kept constantly over the bowels until all soreness, inflammation, and fever are gone.

The bowels should be moved early in the complaint by injecting from one to two quarts of warm soap suds from once to twice a day.

Where the lobelia as recommended to be given by the mouth does not control the unfavorable symptoms of the case, it should be given in the same or even double the quantity by the bowels.

After the fever has subsided put the patient upon the tonic pills, mentioned under general formula, until her strength is renewed.

The womb and vagina should be washed out three or four times a day with the following solution:

Bromo chloralum, 2 ounces.

Carbolic acid, 1 drachm.

Warm water, 1 pint.

Mix. Inject all of this at one time.

PUERPERAL MANIA.

This is a disease which may in every respect resemble insanity, and may occur during pregnancy or after child birth.

It may only last for a few hours or days, or it may last for years or for life.

The disease is sometimes hereditary, occurring in several members of the same family.

The causes of this diseased condition are somewhat obscure. It may arise from excessive lactation, over-straining of the nervous system during labor, suppression of the lochial discharge, taking cold, etc. It may occur without any known cause.

Treatment.—When there is fever with a hot head and quick pulse, bromide of potash may be given in 30-grain doses, combined with 20-drop doses of tincture of gelsemium, once in four hours until all excitement abates. The bowels must be kept regular by giving seidlitz powders

once an hour until they operate freely. This may be repeated once every day.

Where the patient is depressed and the surface pale and cool, the following will be found reliable:

Sulphate of quinia, 30 grains

Camphorated Dover's powder, 40 grains.

Extract of belladonna, 2 grains

Opium, pulverized 3 grains

Mix, triturate, and make into ten capsules. Take a capsule once in four or five hours.

The vapor, or hot air or hot water bath are all appropriate in this disease, and their full effect should be unhesitatingly sought. Their mode of administration is properly outlined in this work.

The patient may be kept in a dark room, and should be removed from all noise and other excitement.

Where the head is persistently hot, cold applications should be used to the head. The ice bag is good for this purpose. A physician should always be called in for this disease.

INFLAMMATION OF THE BREASTS.

Inflammation of the breasts occasionally occurs at a more or less remote period after labor. If this is not controlled it will lead to abscess.

Symptoms.—As a rule, there is more or less chill attending the inflammation of the breasts at first. The chill is followed by fever. If the disease be allowed to progress, abscesses of a serious character are liable to form.

Treatment.—As soon as inflammation is discovered in either breast, cloths should be wrung out of water as hot as can be borne, and be applied to the inflammation, and be frequently renewed until the inflammation has gone down. If this is not sufficient, the patient should have a thorough hot air bath, which may be repeated in a few hours, if necessary to control the inflammation. The bowels should be moved by large injections of warm soap suds. The fever drops, mentioned under general formula, may be used in the meantime. If an abscess forms it may be opened and

treated upon the same principles as a boil. Care must be used not to allow the child to nurse out of the inflamed breast. Cloths wrung out of hot water are *the* local applications to inflamed breasts, and they must be used *hot as they can be borne* or they will fail to accomplish their object. The hot applications must be *frequently changed* so as to keep them *hot*, or they will fail to reduce the inflammation. If the inflammation is not reduced an abscess is sure to be the result.

PHLEGMASIA DOLENS, OR MILK LEG.

This disease consists of a white, swelling of the affected limb. The affected limb is white, tense and shiny. It does not leave a pit after pressure except in the later stages of the disease when dropsy exists.

It is called milk leg because the uneducated often suppose that the mother's milk has settled into the leg, but such is not the case. The disease is caused by an inflammation of the blood vessels and lymphatics of the part.

Symptoms.—The patient generally suffers at first with severe pains in the back, lower bowels, groins, and in the affected limbs. The limb may begin to first swell in the calf and the swelling extend upwards or the swelling may begin in the upper part of the limb and extend downward. The disease generally comes on ten or twenty days after labor.

The enlargement may last for only a few weeks or the enlargement may be permanent.

Some cases die with it. There may be considerable fever attending the attack. The pulse may rise as high as 130 or even 140 beats per minute. There is headache, nausea, constipation of the bowels, etc.

The lochia may be suppressed or not. The milk may also be suppressed.

This disease may occur also in virgin females and in men as well as in mothers.

Treatment.—As soon as the disease begins to show itself, the hot air or vapor bath should be used unsparingly. One or two thorough baths should be taken daily. The pa-

tient should be kept in a warm sweat. The patient may use the composition tea and the fever drops, mentioned under general formula, when there is fever.

After all symptoms of fever have passed away the patient may use the following:

Iodide of potash, 135 grains.

Bichloride of mercury, 2 grains.

Compound fluid extract of stillingia, 2 ounces.

Syrup of sugar, 2 ounces.

Mix and take one teaspoonfull three times a day.

Keep the bowels loose with two or three seidlitz powders a day.

The tonic pills, mentioned under general formula, may be used after all fever has passed away, and at the same time that the above alterative formula is being used.

The patient during this disease should be well nourished on beef tea, milk, etc. No solid food should be administered while the fever is active.

SORE NIPPLES.

Sore nipples during the period that the child nurses is a very frequent and sometimes very obstinate and painful trouble. The nipples may crack or ulcers may form. The ulcers are sometimes quite deep.

Treatment.—Sometimes these ulcers and excoriations are merely the result of chafing from the nursing of the child, and sometimes we are compelled to look for various diseases which may affect the blood, as scrofula, cancer syphilis, etc.

When the breasts get sore, any of the following formulas will be found good to heal the local trouble, but when the system at large is affected, that must be treated accordingly to principles laid down under appropriate heads in this work.

First. Tannin, 10 grains.

Cosmoline, 1 ounce.

Mix, triturate and rub on each time after the child nurses.

Second. Bromo chloralum, 1 ounce.

Rain or distilled water, 6 ounces.

Mix, and wash the nipples each time after the child nurses.

Third. Fluid hydrastis (colorless), 6 ounces.

Glycerin, 2 ounces.

Bay rum, 2 ounces,

Rain or distilled water, 1 ounce.

Mix, and wash the nipples each time after the child nurses.

The main objection to this formula, is that it has a bitter taste and may have to be washed off before the child will nurse.

Fourth. The following excellent formula is taken from Dr. King's American eclectic obstetrics :

Beef marrow, 2 ounces.

Olive oil, 2 ounces.

White wax, 2 ounces.

Cherry wine, 2 ounces.

Place the articles together in a vessel, apply it over a gentle heat, and allow it to remain until all the wine has evaporated. Apply this ointment just before and after the child nurses. Should the child's mouth be sore, this will have a tendency to heal it. I can certify that this is an excellent preparation.

Fifth. Dusting the nipples with subnitrate of bismuth each time after nursing, is an excellent application for chafed breasts. Corn starch is also good.

Where the nipple becomes much sore, it is best to use nipple shields over the nipple while the child nurses. These can be procured at the drug stores. If the child will not use these, the breast pump may be used, and the milk, while warm, may be fed to the child from a spoon, until the nipples heal, when the child should be again placed at the breasts.

The taunin and bromo chloralum mixtures, heretofore mentioned, have a strong tendency to toughen the nipples.

ACCIDENTS ATTENDING LABOR.

There are several accidents which may happen to the mother during labor which may either require treatment at the time or after treatment, or both.

Among these may be mentioned appoplexy, which may be caused by the rupture of a blood vessel in the brain, rupture of the abdominal walls, or rupture of the perineum. These may all be caused by overstraining during the paroxysms of labor.

A physician will undoubtedly be needed to attend to any of these accidents, as they are beyond the skill of the laity.

Until a physician be secured, however, if appoplexy occur, the patient may be treated as recommended under the head of appoplexy. If a rupture of the abdominal walls should occur at any point, a solid compress may be placed over it and be held in place by a bandage until the doctor arrives. If rupture of the perineum should occur, a surgeon will be required to bring the edges of the wound together with appropriate stitches.

The perineal rupture should be attended to as soon after labor as the strength of the mother will permit.

Sometimes a soft fluctuating tumor appears upon the walls of the vagina after labor. This may either be filled with blood and be caused by the rupture of a vein owing to the great pressure of the child's head as it passes through the lower strait, and is called vaginal hematocoele, or it may be filled with a yellowish grumous fluid and is called hydrocoele of the vagina.

In order to determine the nature of such a tumor, a hypodermic needle may be introduced into its cavity and some of its contents be withdrawn. If the contents consist of liquid blood, and if the tumor is compressible to such an extent that pressure will obliterate it until the pressure is removed when it will again fill up, this will show that the interior of the tumor has some free connection with the large veins or arteries which supply the part, and consequently, operation

for its extirpation would be fraught with much danger. If the tumor pulsates it will show that it has connection with an artery. If the fluid withdrawn is of a yellowish or grumous character, then it may be laid open with a scalpel or bistoury and the sack washed out with water and then with tincture of iodine. After granulation is established in the bottom of the sack, by from one to four applications of the iodine, the granulating surface may be treated by washing it five or six times daily with water, to which four drops of carbolic acid is added to each ounce, until it is healed.

Occasionally rupture of the vaginal walls produces a tumor.

This tumor is generally reducible by taxis, and imparts a crepitant feeling to the hand under pressure similar to that produced by hernias in other locations. It is hardly necessary to say that the *utmost* caution must be used against puncturing the tumor and the intestine under the misapprehension that it is a tumor which required evacuation. The treatment of rupture in this location may consist of properly packing the vagina with lint, borated cotton, sponge or other material in such a way as to bring a sufficient degree of pressure against the margins of the rupture so as to prevent the extrusion of the gut. The protruding intestine must always be returned before pressure is brought to bear upon the margins of the rupture, otherwise fatal strangulation of the bowel might occur.

Sometimes rupture occurs through the septum dividing the vagina from the bladder. This forms an opening which is often permanent, which allows the urine to escape from the bladder into the vagina, causing a constant dribbling away of the urine attended by all of its disgusting stench, ulceration, itching, and other annoying consequences. When such an opening becomes permanent, it is called vesico—vaginal fistula. An expert surgical operation is required for its cure.

Again a rupture between the vagina and rectum may occur during labor, which may admit of the passage of the feces through the vagina. When this opening becomes

permanent it is called recto-vaginal fistula. This is a dreadfully annoying and terribly disgusting affliction and may lead to irritation, inflammation and ulceration of the parts. A skillful surgical operation is required for the correction of this grim accident.

Abscess of the vagina may occasionally follow labor.

Partial paralysis of the lower extremities is not unknown, as the result of the tremendous pressure brought to bear against the great nerves which pass through the pelvis, during labor.

Occasionally the mouth of the womb becomes so seriously ruptured during labor as to require a surgical operation to correct it.

I omitted to state that want of care in keeping the bowels and bladder empty during labor is the most frequent cause of their rupture. Rupture of the bladder is an extremely grave accident, and is very liable to result in general collapse, followed by the death of the patient.

NURSE'S SORE MOUTH.

This disease may occur during pregnancy or may come on after delivery. It generally commences with a free flow of scalding saliva which causes the patient to drool at the mouth. The scalding saliva makes the lips and chin sore as it runs down over them. The tongue and inside of the mouth assumes an unusually pinkish hue. Either before or soon after the excessive flow of saliva has commenced, whitish pimples appear which soon break, leaving ulcers beneath them. These ulcers may cover nearly the whole of the inside of the mouth in severe cases. Sometimes the ulceration extends downward into the stomach and through the bowels in which case the disease is liable to be fatal.

The onset of the disease is sometimes very sudden, only a few hours elapsing before the patient is suffering very severely from the great pain which attends this disease and being unable to swallow even fluids without the greatest difficulty.

Treatment.—Where the onset of the disease is sudden, an emetic of the emetic powder, mentioned under general formula, should be given.

After the emetic the system must be treated according to the requirements of the case. Where constipation exists, this may be corrected by using the laxative syrup, mentioned under general formula, or by the use of sprudel salts, or seidlitz powders.

Where diarrhœa is present, the diarrhœa mixture, mentioned under general formula, may be used to check it. Sometimes twenty grain doses of subnitrate of bismuth, to which is added one-half grain of opium and one or two grains of tanin, may be given once in four hours with better advantage to check the diarrhœa. This last is especially good where there is much ulceration or much pain. Care must be exercised not to use enough opium to affect the child unfavorably.

As a local wash for the mouth, several formulas might be suggested, which are all valuable.

Any of the following may be used:

1. Bromo chloralum, 1 ounce

Rain water, 6 ounces

Mix. Wash the mouth with this thoroughly once in four hours.

2. Sulphate of zinc, $\frac{1}{2}$ drachm

Chlorate of potash, 1 drachm

Fluid hydrastis, 1 ounce

Rain water, 7 ounces.

Mix. Wash the mouth with this thoroughly once in four hours.

3. Borate of soda, 3 drachms

Fluid hydrastis, 1 ounce

Pond's distilled extract of hamamelis, 1 ounce

Rain water, 6 ounces.

Mix. Wash the mouth with this thoroughly once in four hours.

4. Bichloride of mercury, 8 grains

Hydrochlorate of cocaine, 8 grains

Water, 8 ounces.

Mix. Wash the mouth out with this once in four or five hours while the patient is awake. This is especially excellent when there is much pain in the mouth.

5. Powered myrica cerifera, 1 drachm

Powdered hydrastis, 1 drachm.

Mix. Put the whole into one pint of hot water and steep for half an hour. Then strain, and add four drachms of chlorate of potash.

Wash the mouth with this once in three hours. Where the ulceration extends into the stomach and bowels, a teaspoonful of this should be swallowed once in three hours.

Other measures are needed, however, when the ulceration extends downwards through the stomach and the bowels. Where this occurs, the patient should take a vapor or hot-air bath every day. Hot applications should be made over the stomach and bowels. The following is, perhaps, as good as any :

Oil turpentine, $1\frac{1}{2}$ ounces.

Olive oil, $6\frac{1}{2}$ ounces.

Mix, and rub over the stomach and bowels once in three hours. Over this keep a hot mush poultice until the tenderness on pressure is removed from the stomach and bowels. Internally the following is an excellent remedy :

Tincture chloride of iron, 4 drachms.

Chlorate of potash, 1 drachm.

Syrup of sugar, 4 ounces.

Mix, take a teaspoonful in one or two swallows of water once an hour through the daytime. Twenty grains of subnitrate of bismuth should also be taken three or four times a day.

Where the above mixture with iron is used then the patient should not swallow any of wash No. 5. She may, however, wash the mouth with it if she desires.

The patient should use nourishing food during this disease. Owing to her inability to use solid food at times, she may then use a sufficient amount of beef tea or beef juice, or sweet milk to appease her hunger, and to keep up her strength until she can use solid food.

Where the patient cannot swallow, milk and beef tea

should be injected into the bowels in sufficient amount to preserve her strength. *Life depends upon this.*

Directions for making beef tea and beef juice are mentioned under general formula.

CARE OF THE INFANT.

During the first few days, weeks or months, the infant is subject to various ailments which require especial care. The proper clothing and feeding, etc., of the infant is a matter which requires sound judgment combined with ripe experience. It is pitiful to contemplate how many a poor infant has been compelled to lay down its young life because of the well-meaning, but misguided, or illy informed judgment of its nurse or attendant. Those who handle the new born infant must remember that it is extremely delicate, and that its life hangs upon a slender thread. The little new comer, when it is first ushered into this world of tribulation and hardships, is as tender as the delicate aspen leaf which scintillates with every breath of the passing breeze. No rough usage must be given to the tender little new-born stranger. Rough handling and officious intermeddling by those who have no practical interest in the child has often cost it its life, or some grave disease or deformity. Permit me to say that *I do not* allow anyone but the nurse and the mother to handle the child. How often has the poor, helpless infant been taken into arms of callers and friends, and been dandled and tossed and exposed to cold draughts of air, thus contracting severe colds which have lead to pneumonia or other severe lung troubles; or has had its spine injured, or ruptures either formed or aggravated where they already existed?

DRESSING THE CORD, BANDAGING, ETC.

After the naval cord has been properly tied, it should be inserted through a small opening in the center of a piece of old linen about three inches square. The linen should be of about three or four thicknesses, and be greased with cosmoline or mutton tallow. The cord should be laid to the left after it has been inserted through the opening in

the cloth and have the bandage applied over it to hold it in this position. After the cord is dressed, a bandage broad enough to cover the bowels of the child, should be pinned about it, care being used to merely draw the bandage tight enough to give sufficient pressure to prevent rupture when the child cries. The bandage should be changed every day, and be examined two or three times a day to see that it is all right. The bandage, as well as all clothing, should be well aired and warmed before being placed upon the child. The bandage should be pinned in front so that the child will not be compelled to lie on the folds of the cloth where it is pinned.

HOW TO CLEANSE THE BABY WHEN IT IS FIRST BORN.

I beg the pardon of my lady readers for offering any suggestions upon so seemingly simple a matter. But you must remember that this book may fall into the hands of many young persons who do not understand how to perform this very important duty. Mistakes here are liable to be the cause of the child taking a violent cold, or they may result in the child getting poison into its eyes which may lead to ophthemia.

The child's body should be first wiped off with a dry cloth and then be greased with olive oil, or pure fresh hog's lard. Then the child may be washed with castile soap and water which is blood warm. After this the child should be wiped dry and the skin gently rubbed to get up a good circulation. Be careful not to get soap in the infant's eyes.

Great care must be used while washing the child not to expose the body of the child to the air. One part of the child may be cleaned at a time, keeping the remainder covered with a warm blanket or shawl.

After being cleaned, the child should have soft flannel underclothing placed next to the skin. A sufficient amount of clothing should be put on outside of this to keep it properly warm. But it must not be loaded down with enough clothing to make it uncomfortable.

The temperature of the room should be kept at about 70° fahrenheit during the daytime and at about 65° fahrenheit during the night.

BATHING THE INFANT.

The infant should be bathed at regular intervals. As a rule, the infant should be bathed two or three times a week. Blood warm water and castile soap may be used for this purpose. Great care must be used during the bath to not expose the child to a cool temperature. Before the infant is stripped for bathing the temperature of the room should be raised to about 90° Fahrenheit. After bathing the child, its body should be rubbed with the naked hand until the skin is red. Vaseline may be rubbed in the arm-pits and in the creases of the thighs and about the privates and the rump.

RETENTION OF URINE.

It sometimes occurs after birth that the child cannot pass its urine. This may be owing to mechanical obstruction such as an imperforate urethra, or, it may be caused by a weakness of the muscles which supply the walls of the bladder; or, it may be owing to spasmodic stricture of the sphincter muscle of the bladder owing to irritability of the urine or to some irritation of those nerve centers which supply the bladder with nerve force; or, to a failure of the kidneys to secrete a proper amount of urine. The last named condition is more properly called *suppression* of the urine. The utmost care must be exercised to see that the child passes its water within two or three hours after birth. If it does not pass urine within a few hours after birth, something is surely wrong.

Symptoms.—Where the urine is secreted into the bladder but cannot be passed from it, a roundish tumor forms over the bladder which is just above the pubes. This tumor varies in size according to the amount of urine which the bladder contains. The amount of urine which the bladder contains, (where the urine is not suppressed), will depend upon the length of time which the urine has been retained in the bladder after birth. Retained urine soon becomes a

source of irritation and pain to the infant, causing it to become restless and to cry. Where no urine is secreted by the kidneys, that is where suppression of urine exists, the child soon becomes restless and feverish, and where this condition continues, convulsions will appear, which will be followed within forty-eight hours by coma and death.

Sometimes there is only a partial retention or suppression of the urine. A few drops of urine may be passed, but not enough to comply with the requirements of nature. The medical attendant must not be lulled into a false sense of security by this. He must only be satisfied when the child has passed a sufficient amount of urine to make a good sized wet spot on the baby's diaper.

Treatment.—Where the infant does not pass its water within two or three hours after birth, hot cloths should be placed over the bladder. These cloths may either be wrung out of water that is a little warmer than blood temperature, or they may be heated over the stove and be used dry. The dry cloths might be tried first and if these do not answer the purpose use the wet ones. When the wet cloths are used, other cloths should be used outside of these to keep in the hot vapor, which is a powerful relaxant. These cloths may be kept up for ten or fifteen minutes, when if urine has not started they may be removed and a few drops of cold water sprinkled over the bladder as soon as the cloths are removed.

The cold water may excite reflex action and start the urine, indeed it is often all that is needed. If the above measures fail, the child's body should be dipped for five or ten minutes into a bath of water which is a little warmer than the temperature of the blood. This last measure is a very powerful one to cause the urine to pass.

If the urine does not pass after the above measures are resorted to, and if no round tumor appears above the pubes and over the bladder, then we may be confident that the child is suffering from *suppression* of the urine *i. e.*, that the *kidneys* are failing to secrete urine in the proper amount. In this event, radical measures must be promptly used to establish the urinary secretion. A mild infusion of

pumpkin seed, queen of the meadow, or water melon seed; or two or three drops of fluid extract of cornsilk in a half teaspoonful of warm water, may be given once in three hours. The child should have a thorough bath of the whole body in water one or two degrees above the temperature of its body, once in three or four hours. It should only be left in the bath long enough each time to make it sweat freely. If the bath makes it show signs of fainting, it should be at once removed from the bath and have a few drops of cold water sprinkled in its face. After the child is removed from the bath, cloths wrung out of water as hot as the infant can endure it should be kept across the kidneys untill the urine starts.

If a round tumor over the bladder indicating the presence of urine in the bladder should appear and the measures above recommended to start the urine fail; then a physician should at once be consulted as an organic closure of the urethra probably exists at some point which prevents the passage of the urine and which calls for surgical interference to save the life of the child.

ATTENTION TO THE INFANT'S BOWELS.

The child should have a motion of the bowels within twenty-four hours after birth. The first milk of the mother acts as a natural purge. Where the mother is healthy the child should be permitted to nurse the first milk from her breasts. While this is contrary to the practice of some, yet it is in accordance with nature, and is, in my judgment, eminently proper. Where this does not move the child's bowels properly a soap suppository may be used or still better a glycerin suppository as prepared by Parke, Davis & Co. This last is perhaps the smoothest and best of all remedies. Your druggist can get them for you.

Rubbing the bowels of the child with the bare hand three or four times a day is also an excellent measure to stimulate the bowels to natural action.

Where *diarrhœa* occurs, a little sweetened tea made from cinnamon bark, or four or five grains of subnitrate of bismuth, may be given three or four times a day. Two

or three drops of paregoric is often all that is needed to check diarrhœa. It may be given in a little warm water or mother's milk.

Should any further means be necessary to check the diarrhœa, I would refer the reader to the articles on Diarrhœa and Cholera Infantum.

INFANTILE COLIC.

Infants are very apt to suffer considerably from colic. This may arise from exposure to cold draughts of air, cold diapers, getting chilled, cold feet and hands; but more commonly, it arises from indigestion caused by too much food, or improper food, sour stomach, drinking too much water, catnip-tea, etc.

Symptoms.—The child cries violently during the paroxysm of pain and throws its arms about wildly, the muscles of the belly become hard, it draws up its legs, and evinces great agony.

As the paroxysm subsides the child may quiet down for a few moments, when it again *suddenly* sets up its screaming. The intervals of ease may become shorter and farther apart until the child constantly suffers with the racking pain which is liable, sooner or later, to throw it into violent spasms. The face and extremities generally become cold and the child may break out in a cold sweat, the bowels and stomach become bloated and if the disease be not relieved it is liable, in some cases, to terminate in death.

Treatment.—Internally I would advise hot catnip tea, peppermint tea, or spearmint tea. I prefer the catnip. A few teaspoonfuls of water as hot as the child can drink it is often all that is needed, and is, in fact, for ordinary cases the best, because the most harmless treatment. Where the colic still persists, a powder of bicarbonate of soda (common baking soda) as large as a grain of corn may be given in one-half teaspoonful of warm water. This will relieve acidity of the stomach, which is often a leading cause of colic. Cloths wrung out of water as hot as the child can endure it, may be laid over the stomach and bowels and be changed as often as they cool. Hot, dry cloths should be

placed to the extremities of the child. The room should be kept warm.

If these measures fail to relieve the child, then two or three drops of paregoric should be given in a half teaspoonful of hot water once in twenty minutes until relief is obtained. The paregoric where it does not derange the stomach and the bowels is generally the best remedy for this affection in children, but it does not agree well with some children.

A bath of the whole body in water as hot as can be borne for five or ten minutes, is often a remedy of sovereign efficacy in this affliction. When the child comes out of the bath it should be well rubbed and dried and be warmly dressed.

During the attack it is well to gently trot the child upon the knee, keeping the child in an upright position, as this will assist it to throw the wind off of its stomach. Be careful not to use violence with the child however.

Children fed upon artificial food are more subject to colic than those who live on the milk of their mother.

Where it is necessary to use artificial food, I would refer parents to the peptonized milk recommended under the head of cholera infantum.

INFANTILE RASH.

A pimply eruption generally breaks out over the surface of the child a few days after birth. The pimples may be whitish or reddish in color, and are generally surrounded by a reddish flush of the skin. The eruption does not last long. After one crop of pimples have disappeared, another crop or two may show themselves soon to disappear in like manner.

Treatment.—As a rule, but little or no treatment is necessary.

Should too much redness of the surface be present, accompanied by more or less fever, it might be well to give the following:

Tincture of belladonna, 1 drop.

Tincture of aconite, 1 drop.

Water, 8 ounces.

Mix, and give 15 or 20 drops of this three or four times a day until all signs of fever and inflammation have disappeared.

The eruption may be rubbed once or twice a day with vaseline or goose grease. Dusting the eruption with sub-nitrate of bismuth, powdered arrow root or corn starch is often all that is necessary.

BLEEDING FROM THE NAVEL CORD.

Bleeding from the navel cord may occur either because the cord has not been tied tightly enough, or it may be owing to a shrinking of the cord after it has been tied.

Treatment.—Tie the cord again, being careful not to tie it tight enough to cut it in two. Sometimes hemorrhage may occur from the navel when the cord separates from it. This may generally be corrected by washing the bleeding surface with any of the following washes, viz.: Strong alum water, water to which is added eight grains of Monsell's salt of iron to the ounce, a solution of ten grains to the ounce of sulphate of zinc, or the following, will be found very excellent where the hemorrhage is not profuse:

Bromo chloralum, 1 ounce.

Carbolic acid, 20 drops.

Water, 4 ounces.

Mix. Wash the bleeding surface with this until the blood stops. Where the bleeding is rapid, the open mouths of the bleeding vessels may be washed with Monsell's solution of iron. If this last does not stop the blood, a surgeon must be called at once.

ULCERATION OF THE NAVEL.

Occasionally when the navel cord drops off an ulcer is left behind.

Treatment.—The surface of the ulcer should be cleansed three times a day with warm water, to which two drachms of bromo chloralum is added to one third teacupful of water. After washing, dry the ulcer with a soft rag, then apply the following:

Oxide of zinc, 20 grains.

Carbolic acid, 5 drops.

Vaseline, 1 ounce.

Oil of rose, 1 drop.

Mix. Apply on a soft rag.

RUPTURE OF THE NAVEL.

This accident generally occurs soon after the birth of the child and is caused by crying, straining, coughing, rough handling, ect.

It may be known by a tumor varying in size from a hazelnut to a walnut, appearing at the site of the navel.

Treatment.--The extruded gut should at once be returned to its place. To do this the child should be placed upon its back with its head raised and its knees drawn up towards the belly, when the tumor should be reduced by carefully crowding the gut back through the rent in the abdominal wall.

After the gut is returned to its place, it must be prevented from protruding again by compresses, held in position over the seat of the rupture.

A good compress may be made by placing a wooden button mould about as large around as a quarter of a dollar between about six or eight thicknesses of old linen. A seam should be made through the linen around the edges of the mould so as to hold it firmly in place between the folds of the linen. It will be observed that the linen when thus sewed about the button, will answer the purpose of a cushion, preventing the hard wood of the mould from coming in contact with the tender skin of the child. The linen should extend for one inch in each direction from the edge of the mould.

This compress, which is a sort of truss, should be greased with mutton tallow on the side which goes next to the child. Two of these compresses should be kept on hand as one should only be worn about three days before being changed, and having the old linen upon it replaced by clean linen. As soon as one compress is taken off and the navel washed, another compress must be applied so as to prevent the rupture from bulging out again. The navel should be

washed with warm castile soap suds and be dried and greased with mutton tallow before the compress is applied. Five or six thicknesses of sheet lead folded the same size as the compress should be placed over the compress, when the latter is in position, over the seat of the rupture. (It is well to also sew a few thicknesses of old linen about the folded sheet lead). Strips of surgeons' adhesive plaster should now be laid over the lead in different directions and should extend about one inch beyond its border and be stuck to the surrounding skin of the child. These strips are for the purpose of keeping the compress firmly and steadily to its place. Over all should be placed a bandage which extends around the body.

Should the skin beneath the compress show signs of ulcerating, it should be bathed with bromo chloralum whenever the compress is changed, putting the mutton tallow on over this.

Great care must be taken not to allow the infant to cry more than can be avoided.

The child should not be subjected to any rough handling. Its bowels should be kept moderately loose so that it will not strain at stool. Where it is inclined to be constipated injections of warm water may be used daily.

If the foregoing treatment be faithfully and intelligently carried out, most cases will recover in from two to four weeks.

I omitted to state that the compress should be examined every day to see that it is properly in place.

INFANTILE JAUNDICE.

Infants are liable to suffer from a jaundiced or yellowish condition of the skin, and eyes. The stools may be yellow or clay colored. The urine is sometimes so yellow as to stain the child's diaper.

Treatment.—Saffron tea is about all that is needed for the cure of this disease. A teaspoonful or two may be given to the infant four or five times a day. Compound syrup of rhubarb and potash is also good when the stools become clay colored. The child should also be properly and regularly bathed.

Bandages about the bowels and liver should not be too tight, as this is liable to interfere with the flow of bile from the gall duct as well as with the proper action of the liver.

TONGUE TIED.

When the infant is unable to protrude its tongue beyond the lips we say that it is *tongue tied*. This is caused by a short fraenum linguae, which is sometimes called the "bridle of the tongue." If allowed to go uncorrected it produces indistinctness of enunciation of words, or lisping.

Treatment.—The fraenum linguae which is situated beneath the tongue, and which adheres to the lower side of the tongue and the floor of the mouth respectively, should be clipped with a pair of blunt pointed surgeon's scissors. The incision should be made as near the floor of the mouth as possible, and should only extend about one-eighth of an inch backwards from the anterior margin of the fraenum linguae. The operation may sometimes be performed while the child is asleep. The lingual artery which is situated on the under side of the tongue is liable to be cut by a bungling operator, and this might cause very serious hemorrhage. It is therefore best to call in your family physician to perform the operation.

Parents must not neglect to have this operation performed, as it is of great importance to the future welfare of the child.

INFANTILE OPHTHALMIA OR OPHTHALMIA NEONATORUM.

This disease generally appears during the first week or two of the infant's life, often appearing within two or three days after birth. It is caused by foul secretions or poisonous substances getting into the infant's eye. The most common causes are diseased or foul discharges from the vagina of the mother coming in contact with the infant's eye. Where diseased discharges are present in the vagina of the mother, such as Leucorrhea, or gonorrhea, the infant may either get some of this into its eyes during birth, or they may be conveyed to its eyes by the hands of

the nurse or mother, or by coming in contact with the infected bed clothing, dirty sponges, towels, or by washing its face from a basin which contains these poisons.

Symptoms.—At first a slight redness accompanied by watering of the eye, which is soon followed by little flecks of matter appears. The mattery discharge soon becomes profuse. The ball soon begins to inflame and unless prompt measures are used the eye will soon be permanently injured, or entirely lost.

Treatment.—As soon as the disease makes its appearance, it must be promptly attended to.

The eyes may be first washed with warm tea for a day. If they do not get rapidly better on this, then use the following wash:

Nitrate of silver, 4 grains.

Distilled water, 1 ounce.

Mix, use one or two drops in each eye once a day.

Keep all matter wiped away from the eyes. For this purpose use soft linen cloths wrung out of hot water. Soft linen cloths may be wrung out of hot tea and be kept over the eyes between the applications of the nitrate of silver wash.

These cloths should not be allowed to become cold.

The following wash may be also used between the times when the foregoing eye water is used:

Fluid hydrastis (colorless) 10 drops.

Muriate of cocaine, $\frac{1}{2}$ grain.

Distilled water, 1 ounce.

Mix, drop one drop into each eye three times a day.

INFLAMMATION OF THE BREASTS.

Infants occasionally suffer with swelling of the breasts soon after birth. This should be attended to as soon as discovered.

Treatment.—Dermador should be rubbed over the breasts three or four times a day until the swelling goes down. Where this is not sufficient, cloths wrung out water as hot as the infant can endure, should be kept over the

swelled breasts for two or three hours each day. When the wet cloths are not applied, hot dry flannels may be kept next to the breasts, first rubbing them with goose grease or mutton tallow. The above, if intelligently used, will be sufficient.

APHTHÆ, OR THRUSH.

This consists of canker sores which form on the tongue, lips and over the inside of the mouth. The sores sometimes extend downward into the stomach and through the bowels. When they do this the disease is very apt to prove fatal. The child becomes anaemic, and loses flesh rapidly and becomes very peevish and fretful. The breath becomes foul, the pulse rapid, the child vomits a good deal, and diarrhoea is common. The child is apt to be quite feverish in severe cases and the head becomes hot. The soreness and inflammation which extends through the stomach and bowels seriously interferes with the appetite and digestion of the child.

Treatment.—This is a very difficult disease to manage where the child is very young especially if the child cannot be supplied with an abundance of healthy mother's milk.

Where the mother is not healthy or cannot furnish sufficient milk, the child should be fed upon peptonized milk as recommended under the head of cholera infantum.

The mouth of the child may be dusted with the following powder:

Powdered loaf sugar, 2 ounces.

Powdered borax, 1 ounce.

Mix thoroughly; put some of this into a dust bag and dust it into the child's mouth four or five times a day.

The following is also good to wash out the infant's mouth:

Bromo chloralum, 2 drachms.

Ponds' distilled extract of hamamelis, 2 drachms.

Distilled or rain water, 1½ ounces.

Mix, wash the mouth of the infant with a soft rag, which has been dipped in the above, four or five times a day.

Where the inflammation extends through the stomach and bowels, four or five drop doses of the compound syrup of rhubarb and potash may be given three or four times a day. Between the doses of the above syrup, three grain doses of subnitrate of bismuth may be given.

The child's surface may be bathed in warm water every day, rubbing it afterwards until the skin is red.

When the child becomes feverish, use the following fever drops:

Mother tincture of aconite, 1 drop.

Water, 8 ounces.

Mix, take a teaspoonful once in two or three hours until the fever goes down.

Fifteen grains of chlorate of potash may be dissolved in half a glass of water, and a half-teaspoonful of this be given to the infant four times a day until the disease gets well.

CYANOSIS, OR BLUE DISEASE.

Sometimes cases are met where the surface of the infant turns purple, and in extreme cases this discoloration of the surface becomes very marked.

The purple color is owing to the fact that the blood is not properly oxygenized.

Anything which prevents the proper circulation of the blood through the lungs will cause it. This circulation may be interfered with by failure of the foramen ovale to close at birth. This foramen is situated in the septum or wall between the two sides of the heart, and previous to birth it permits of the blood of the infant flowing through it, thus escaping into the arterial trunks without circulating through the lungs; the lungs of the mother performing the double office of aerating her own and the infants blood. After birth, however, the lungs of the infant are compelled to aerate the blood which circulates through its body. Hence the absolute necessity that all openings between the two sides of the heart should be closed, thus compelling the blood to traverse the blood vessels and capillaries of the lungs, where it becomes oxygenized before reaching

the other side of the heart. Not only malformation of the heart, but partial closure of the blood vessels leading from the heart to the lungs may lead to the same result.

Symptoms.—The blue color of the surface is the leading diagnostic symptom. The surface also becomes cold and the child is sluggish. It is apt to suffer from labored breathing, palpitation of the heart is common, fainting is occasional, and spasms generally appear before the child dies.

Treatment.—The results of treatment are very unsatisfactory in this disease. The case nearly always terminates fatally where nature does not effect a cure.

The bowels should be kept regular, and proper attention must be paid to bathing. The child should be warmly clothed as the nonaerated blood does not furnish sufficient heat for the body.

The child should lie upon its right side with the head and shoulders slightly elevated. The child must be kept as quiet as possible.

Where spasms occur, the child may be dipped in water as hot as it can endure it, until it comes out of them.

Injection of warm water may be used where the bowels are constipated.

Many children affected, die within a few weeks or months after birth. Some however live on for years, but seldom reach mature age.

Medicines are useless in this disease.

CORYZA. OR SNUFFLES.

Children are often affected by a cold in the head which makes the nose run and seriously interferes with breathing, especially while the child is nursing from the breast or from a bottle.

Treatment.—Rub over the nose and between the eyes, and over the throat and breast with goose grease three or four times a day. Hen oil or mutton tallow may be used where the goose grease cannot be obtained.

Keep the child warmly dressed with flannels, next to the skin. The child should be bathed with warm water every day, afterwards wiping it dry. Then rub the child

with the naked hand till it is red all over. The air must be very warm in the room where the child is being bathed.

Where the child seems very weak and is inclined to sweat too much; two grains of quinine may be rubbed up in a teaspoonful of lard and a little of this rubbed in the armpits three times a day.

Catnip tea is also good for this disease in young infants. A little saffron tea to move the bowels is also good.

Cold draughts of air must be strictly avoided. The room must be kept warm. About 80° fahrenheit is right.

When the infants nose is so stopped up that it cannot suck, it must be fed from a spoon.

When there is fever use the following:

Mother tincture aconite, 1 drop.

Water, $\frac{1}{2}$ pint.

Mix, dose a half teaspoonful three or four times a day.

HARE-LIP.

This consists of a vertical division of the upper lip, either under the middle of the nose or under one nostril. Sometimes this division extends back through the hard and soft palate, requiring a very skillful surgical operation for its correction. Whether only the lip, or where both the lip and the palate are divided, a surgical operation should be performed to correct the deformity.

Children a month old may be operated upon, but three or four years of age is a safer time for the operation.

DISEASES OF THE EYE.

The human eye is subject to a great variety of diseases which are complex in their nature. Only the skilled oculist is able to diagnose all the diseases of the eye.

To attempt to give a detailed account, therefore, of the various diseases of the eye would not be of any practical benefit to the general reader. In view of the foregoing facts, I shall only attempt to describe a few of those general conditions which all may observe and measurably understand without the aid of delicate instruments in making their diagnosis.

DESCRIPTION OF THE EYEBALL.

The eyeball is almost spherical in form, the anteroposterior diameter being a trifle longer than the diameter from side to side. The ball of the eye is formed by several coats.

The back part of the eyeball has three coats.

The *sclerotic* or white coat is the thickest and strongest coat of the eye and extends from the cornea in front to the optic nerve behind.

The *choroid* coat lies next to the sclerotic coat and is the vascular coat of the eye. On its inner surface it is coated by a dense layer of black pigment cells which absorb all the light which falls upon them and thus prevent reflection.

The *retina* is the inner coat of the posterior tunic of the eyeball. It adheres closely to the choroid coat. It consists of an expansion of the optic nerve and is the seat of vision.

The *iris* is a thin muscular curtain which hangs in front of the crystalline lens. It is perforated at its center by a hole called the pupil.

The *lens* is a double convex body, which is located just behind the pupil, and rests in a capsule against the center and forepart of the vitreous body.

The *vitreous* body is a colorless transparent body, which fills that portion of the eyeball back of the iris and crystalline lens. It preserves the round form of the eye.

The *cornea* is the clear portion at the front of the eye through which light passes into the eye.

The *conjunctiva* is a mucus membrane, which covers the visible portion of the eyeball, and it is reflected backward till it covers the inner surface of the eyelids.

INFLAMMATION OF THE EYEBALL.

Inflammation of the eyeball assumes many forms, and leads to many different results, and it varies in degree from a slight redness to destructive processes, which break down the structures of the eyeball.

These different degrees and kinds of inflammation receive different names in medical works upon the subject,

according to their severity, nature or the structures, which are chiefly involved.

For practical purposes for the general reader I think it best to treat them all under one general head, viz.: inflammation of the eyeball.

Causes.—Particles of dust or any foreign, irritating substance, strong winds, syphilis, scrofula, erysipelas, or any deep-seated blood poison, taking cold, straining the eyes from too long continued use without rest, loss of sleep, intemperance in the use of strong drink and tobacco, improperly adjusted eye-glasses, etc., are all causes of inflammation of the eye-ball.

Treatment.—First, the general health must be carefully looked after. If the patient is suffering from any disease which can act as a cause, this must be carefully attended to.

First. The patient should take hot-air or vapor baths at least three times a week, and where the inflammation is violent, these should be used once a day. The body and the clothing should be kept scrupulously clean.

Second. The eyes should be carefully cleaned, by cloths which have been dipped in water as hot as can be borne, as often as matter collects in them.

Third. Wring cloths out of either cold water, or water hot as can be borne, and keep them over the eyes until the inflammation goes down. Hot cloths are generally the best. Hot cloths may be used for half an hour, and then be left off for two hours, and then be again applied.

Fourth. The eyes should be kept thoroughly protected from light and air until all acute inflammation subsides.

Fifth. There are various eye waters that are good to assist in reducing the inflammation. The following is a generally serviceable wash for this purpose:

Tincture aconite, 10 drops.

Sulphate of zinc, 3 grains.

Muriate of cocaine, 1 grain.

Colorless fluid hydrastis, 2 drachms.

Glycerine, 3 drachms.

Rose water, 11 drachms.

Mix, drop two or three drops into the inflamed eye once

in three hours. In the meantime keep cloths applied to the eyes as heretofore recommended.

Blisters to the temples or back of the neck are often recommended by good authority.

GRANULATED LIDS.

Inflammation sometimes affects the mucus membrane lining the inside of the eyelids, in such a way, as to produce granulations. These granulations may be very small at first, but they may grow until each will be as large or even larger than a millet seed. These may last for many years. Whenever any special cause of irritation is brought to bear upon them active inflammation is liable to be set up which is extended to the eye ball itself. After a longer or shorter period of time varying with different cases, the inflammation again subsides till the ball of the eye may be quite clear. Thus the disease comes and goes, being a source of more or less constant annoyance to the patient. The granulations are apt to make the eye feel rough as though sand were in it, especially is this true toward evening. The lids become stiff and heavy and droop so that the eye remains partially closed in severe cases. The poisonous secretions from granulated lids are contagious when conveyed to other eyes. The patient should have a separate towel to wipe on.

Treatment.—Many kinds of treatment have been proposed for granulation of the lids, some of which are very injurious to the eye. The following if intelligently used will always cure and is safe.

Nitrate of silver, 20 grains.

Distilled water, 1 ounce.

Mix, turn the lid and apply some of the above on the end of a probe which is wrapped with fine raw cotton. Allow the liquid to remain in contact with the granulations until they look whitish, then wash off thoroughly with water before the lid is allowed to return to its natural position.

After the operation put a few drops of the following so-

lution into the eye every few minutes until the pain is relieved.

Muriate of cocaine, 1 grain.

Distilled water, 1 ounce.

Mix, and use as above directed.

Care must be used to not get the nitrate of silver solution upon the eye ball. When any of it gets upon the ball it must be at once rinsed off with water.

The nitrate of silver application may be used twice a week. Between these applications use the following eye water.

Sulphate of zinc, 2 grains.

Tincture aconite, 8 drops.

Muriate of cocaine, 1 grain.

Colorless fluid hydrastis, 2 drachms.

Glycerine, 2 drachms.

Rose water, 4 drachms.

Mix, drop 3 or 4 drops into the eye three times a day.

DROOPING LIDS, OR PTOSIS.

Sometimes the upper lid hangs down, giving the eye a sleepy appearance. This may be so from birth, owing to a redundancy of the skin covering the upper lid, or it may be owing to a paralysis of the nerves supplying the upper lid. In either event, the deformity can be removed by taking out an elliptical flap of skin from the upper lid. A surgeon will be required to do this.

ENTROPIUM.

This consists of an inversion or rolling under of either the upper or lower lid in such a way that the lashes rub against the eye ball. The constant irritation of the lashes against the ball keeps up a state of chronic inflammation which sooner or later will lead to scums and ulcers upon the surface of the ball. The treatment consists in removing an elliptical flap of skin from the inverted lid. A surgeon is required to do this.

WILD HAIRS.

Wild hairs are caused by inflammation of a chronic nature affecting the lids. They should be removed by a pair of tweezers and the inflammation of the eye removed so as to stop their growing. They are very fine and often hard to see and they are also very annoying as they rub against the eyeball.

ECTROPIUM.

This is where the lid is everted, exposing the mucus membrane of the lower lid. The treatment consists in removing a vertical V-shaped section from the lower lid, which extends through the tarsal cartilage, afterwards bringing the edges of the wound together with stitches. A surgeon will be required to do this.

CROSSED EYES (STRABISMUS).

One or both eyes may either turn in or outward. This condition may exist from birth, or may be acquired afterwards. It is caused by paralysis of one or more of the muscles which supply the eyeball.

The treatment consists in cutting through the muscle, which opposes the paralyzed muscle. A surgeon will be required for this operation. The operation should not be delayed beyond puberty, as the crossed eye is apt to become weak, if not blind from non-use.

CATARACT.

This consists of an opacity of the crystalline lens which when the cataract is ripe, shows with a pearly whiteness in the pupil. The treatment consists of the removal of the crystalline lens by a surgical operation. It is only safe to entrust this operation to a skilled oculist. There is no treatment known which will prevent them. Medicines are of no avail.

PTERYGIUM.

This is a reddish flat triangular tumor which grows from the periphery of the exposed portion of the eyeball with its

apex pointing toward the pupil. Sometimes it extends entirely over the pupil destroying vision.

Treatment.—When the tumor or scum first begins to form, use the following wash:

Sulphate of zinc, 4 grains.

Muriate of cocaine, 1 grain.

Fluid hydrastis, 2 drachms.

Rose water, 6 drachms.

Mix, drop three or four drops into the eye two or three times a day.

If the pterygium has grown till it is a thick scum, the surgeon's scissors will be required to remove it. The patient should go to an oculist.

ABSCESS OF THE EYEBALL.

Sometimes a collection of matter forms in the anterior chamber of the eyeball. This should be at once evacuated with a paracentesis knife. The case may afterwards be treated according to the general principles laid down for inflammation of the eyeball.

TUMORS OF THE EYELID.

Tumors, varying from the size of a small pea to the size of a hazelnut, sometimes form in the substance of the eyelid. As these grow they become a source of irritation to the eyeball. They also look badly. They should always be removed. This may be done by everting the lid and making a horizontal incision through the mucus membrane down to the tumor. The tumor may now be grasped by a pair of small toothed forceps and firmly held while the tumor is carefully dissected out by a small bistoury or cataract knife. A surgeon will be required to do this.

INFLAMMATION OF THE MARGIN OF THE EYELIDS.

The margin of the lids are sometimes the seat of an inflammation which causes matter to form at the roots of the eyelashes. The matter dries, in the forms of scales, along the margin of the lids. The disease is apt to cause con-

siderable itching of the parts, and the eyelashes fall out. The disease is very obstinate, and may last for many years.

Treatment.—Cleanse the dried matter away from the margin of the lids, and use the following:

Bichloride of mercury, 4 grains.

Carbolic acid, 8 drops.

Colorless fluid hydrastis, 4 drachms.

Rose water, 12 drachms.

Mix, and rub along the margin of the lids three times a day, using care not to get any of the liquid into the eye. Keep this up until the patient is cured. I have used this for years and have never known it to fail.

WATERING OF THE EYES.

Any inflammation which leads to closure of the tear ducts which lead from the eye to the nose causes an overflow of the tears, which dribble down the patient's face and become a matter of great annoyance as well as excoriate the skin of the face.

Treatment.—A silver, gutta percha or horn probe must be inserted along the closed ducts, opening them up. This operation should be repeated daily until the ducts remain open and the tears run off through their natural channel. Between the operations, the following wash may be used:

Sulphate of zinc, 4 grains.

Fluid hydrastis, (colorless), 4 drachms.

Rose water, 12 drachms.

Mix, drop 3 or 4 drops into the eye three or four times a day.

MYOPIA, OR SHORT-SIGHTEDNESS.

In this affliction the patient is compelled to hold objects very close to him to see them clearly. The optic axis of the eye is too long. This defect is generally congenital and concave glasses are the only treatment that is of any avail. These will not only enable the patient to see objects clearly which are close at hand, but distant objects as well. The defect is incurable. The weakest glass should be used with which the patient can see clearly.

PRESBYOPIA, OR FAR-SIGHTEDNESS.

In this disease the patient cannot see objects near by distinctly, without the aid of glasses. This is owing to the fact that the optic axis is so shortened by the eye becoming flattened, that the image falls behind the retina. This defect of vision is common in old persons. Convex glasses correct it. The glasses should focus objects at from fourteen to sixteen inches from the eye. Glasses should not be worn which magnify the object to more than its natural size, as this would strain the muscles of accommodation, and be of great damage to the eye.

COLOR BLINDNESS.

This consists of an inability to distinguish one color from another. This defect is more common than is generally supposed. Persons may be able to distinguish some colors and not others.

Those working where colored signal lights are used, as about railway stations, etc., should be able to carefully distinguish between colors, as otherwise they are liable to make mistakes which will result in the loss of property and life.

SPECTACLES.

Spectacles serve three purposes, viz.: to protect the eye, and act as a shade to it, and also to assist vision.

The habit which some persons have of wearing spectacles as an ornament is very pernicious as well as very silly. Spectacles should not be worn until they are needed.

Far sighted people need one pair of glasses to read with, and another pair for longer distances. Near sighted people use the same glass for near and distant objects alike.

Glasses should never be worn which magnify objects beyond their natural size, as this strains the muscles of accommodation, and permanently injures the eye.

Colored eyeglasses should never be used where the eye does not need shading.

Where the eye is weak and requires shading, the London smoked eye glasses are the best. Blue or green glasses are not so easy on the eye as the smoked glass.

Crown-glass is the best material from which to make spectacle lens. It is also cheap material, and much better for the purpose than the more expensive rock-crystal or pebble.

DISEASES OF THE EAR.

The ear is composed of three parts, viz: the external, the middle, and the internal ear.

The external ear consists of the auricle and the auditory canal, which terminates at the drum of the ear.

The middle ear consists of the cavity, which is situated between the ear drum on one side and the internal organs of hearing on the other. The bones of the ear—three in number—are situated in the middle ear.

The internal ear consists of several bony cavities in the petrous portion of the temporal bone. These are known as the vestibule, semicircular canals and cochlea. These cavities contain the terminal distribution of the auditory nerve and constitute the essential organs of hearing.

The different parts of the ear are subject to many diseases, but their diagnosis is so difficult requiring instruments, experience and skill to such a degree, that a full description of these various diseases would be of no practical importance to the general reader, as he could not possibly understand them. I shall therefore content myself with a few practical remarks upon those plainer parts of the subject which will be of practical use to the general reader.

EARACHE.

This is ordinarily caused by taking cold in the head, allowing cold water to run into the ear, or cold draughts of air to blow into it.

Sometimes other diseases, as small pox, measles, scarlet fever, syphilis, cancer, etc., lead to it.

Treatment.—Where this is caused by some other disease we must look to the proper treatment of that while we are using measures for the relief of pain.

Where earache is produced by taking cold in the head, cloths wrung out of water as hot as can be borne and kept to the side of the head are excellent. The following drops may also be used in the ear:

Sulphate of atropia, 2 grains.

Muriate of cocaine, 4 grains.

Sulphate of morphine, 4 grains.

Warm water, 1 ounce.

Mix, fill the ear with this and allow it to remain four or five seconds, then turn the head over and let it all run out. This may be repeated once an hour while the pain lasts. These drops are dangerous where a hole has ulcerated through the drum head. In such cases only two or three drops should be used at a time. After the drops are used the hot cloths must be again re-applied.

A hot air or vapor bath of the whole body is a radically good measure in this affection.

The following may be used internally:

Sulphate of quinine, 30 grains.

Camphorated dovers powder, 50 grains.

Mix, triturate, make ten powders. Take a powder once in four hours.

The bowels may be freely moved by taking seidlitz powders.

Keep the patient warm and the surface moist. In extreme cases where the above does not relieve, one-eighth grain of sulphate of morphine may be given and repeated in an hour if necessary.

Allowing hot vapor to pass directly into the ear is often a very prompt measure of relief. Allowing a stream of warm water to pour into the ear is good to relieve pain. Don't use poultices in the ear as they are liable to lead to maceration and breaking down of the ear drum.

Should the pain be persistent after the above measures have been used for a reasonable length of time, an abscess of the middle ear may be suspected with a tolerable degree of certainty. This may be known by throbbing in the part, and inflammation and bulging of the ear drum. When an abscess forms it should be opened with a paracentesis knife.

The disease may afterwards be treated the same as described under suppuration from the ear.

SUPPURATION FROM THE EAR.

Abscesses of the middle ear arise from various causes. Among these may be mentioned, scarlet fever, syphilis, measles, small-pox, taking cold in the head, etc.

This affection is liable to last for a long time. The discharge is periodic in most cases, while in others it is nearly constant. The discharge is apt to emit a very offensive odor.

The primary abscess after it bursts is followed by more or less extensive ulceration which is the source of the subsequent discharge.

Chronic ulceration of the middle ear is a source of great danger not only to hearing but to life itself. The bones that separate the middle ear from the brain are so thin that a long continued ulceration of the part is apt to eat its way through to the brain, causing fatal inflammation. When the brain begins to be affected the patient is apt to suffer with headache, *dizziness*, occasional paralysis of the face, vomiting, greater loss of hearing, etc.

Treatment:—This is a disease which should receive strict attention from the first, as it is liable to lead to loss of hearing if not fatal consequences.

The sooner that proper treatment is begun the easier the disease will be to cure. If treatment is delayed until the bones become affected, the cure of the case becomes a matter of grave doubt, for no one can tell until after a post mortem examination of the dead patient is held, how deep the ulceration of the bone has extended. I therefore entreat patients for the sake of their children not to neglect the treatment of this disease in its early stages. If the disease has existed for a long time before you have received a warning from this book, then you should at once seek the aid of some competent man who has made a special study of the ear. For the benefit of those who cannot consult an expert, I will offer a few suggestions as to treatment.

The ear should be thoroughly syringed out with warm

water, to which one drachm of carbolic acid is added to the pint, so as to clean out all of the matter, then the following solution may be used:

Nitrate of silver, 100 grains.

Distilled water, 1 ounce.

Mix, warm and fill the ear with this, allowing it to remain for ten seconds then empty it out and fill the ear with a pledget of raw cotton. This may be repeated once a day while there is a free discharge of matter. As the discharge begins to dry up, then only use this wash every other day, or only twice a week where it seems to be severe.

The matter may be washed out of the ear three times a day by the carbolic acid wash heretofore mentioned. After each washing (except when the nitrate of silver wash is used) use the following in the ear:

Carbolic acid, 8 drops.

Olive oil, 2 ounces.

Mix, and drop a few drops into the ear, allowing it to run in by holding the head on one side. Then plug the ear with a pledget of raw cotton.

In chronic cases fifteen to twenty drops of syrup of iodide of iron should be taken three times a day to purify and strengthen the blood.

The patient should either take a thorough bath in hot water or take a vapor or hot air bath three times a week. The bowels should be kept regular with the liver syrup, mentioned under general formula, and the diet should consist of fresh meats, vegetables, milk, and be supporting in character. Pastries and sweet meats should be avoided.

EAR WAX.

Sometimes the amount of wax is either lessened or increased beyond what is natural. Both are injurious to the ear.

Where the ear is too dry, the alterative syrup, mentioned under general formula, may be taken internally, and the following may be used in the ear:

Glycerine, 4 drachms.

Rain water, 4 drachms.

Mix, put a few drops of this into the ear three or four times a day.

When there is too much wax, use the following in the ear:

Bicarbonate of soda, 30 grains.

Rain, or distilled water, 4 ounces.

Mix, warm and wash the ear, using a syringe, three times a day. The above wash will dissolve a *bolus* of wax in the ear.

After the excess of wax has been removed, the following may be used in the ear:

Corbolic acid, 8 drops.

Sweet oil, 2 ounces.

Mix, drop three or four drops into the ear three times a day for one or two weeks.

RINGING, OR NOISES IN THE EAR.

Noises in the ears is often a very annoying symptom. It has been the cause of quite a number of suicides.

It is owing to quite a number of causes. Anything which produces congestion about the terminal filaments of the auditory nerve may cause it. Among its causes may be mentioned inflammation of the middle ear, inflammation of the drum head, or large collections of ear wax in the external auditory canal, which press against the drum head. Sometimes the disease is caused by an incurable affection of the auditory nerve.

Treatment.—Where this disease is caused by collections of wax, a proper treatment has been given in the preceding chapter, but where it arises from other causes, the patient must seek the aid of a competent aurist.

GENERAL FORMULA.

Under this head I shall present the reader with a few standard prescriptions, most of which have been referred to during the course of this work.

It will be well for my readers to look these over carefully, so that they can use them as occasion requires.

FIRST—COMPOSITION POWDER.

Pulverized Jamaica ginger, 4 ounces.

Pulverized *asclepias tuberosa*, 4 ounces.

Pulverized *myrica cerifera*, 4 ounces.

Pulverized prickly ash bark, 1 ounce.

Pulverized capsicum, 4 drachms.

Mix thoroughly. A heaping teaspoonful of this may be put into one pint of water and steeped at nearly boiling temperature for twenty minutes in a covered vessel.

The patient may drink it at pleasure, as it is safe.

It is an excellent general stimulant. and promotes secretion from the skin.

It is one of the most universally applicable medicines in the whole list of pharmaceutical preparations.

SECOND—EMETIC POWDER.

The following emetic powder is recommended by the justly celebrated Dr. John M. Scudder. It is the best emetic for general purposes that I have ever used. Its action is mild and certain, and only very small doses are required. It is made as follows:

Pulverized lobelia seed, 2 drachms.

Pulverized ipecac, 1 drachm.

Pulverized capsicum, 10 grains.

Mix thoroughly. Dose: two grains in warm water once

in ten minutes until the patient has vomited sufficiently. Give the patient one-half glass of warm water after each effort at vomiting. This will prevent straining and aid the emetic in performing its work. This is the remedy for cleansing the stomach, and at the same time it throws the blood to the surface, thus equalizing the circulation and causing the patient to sweat freely.

The purposes for which emetics should be used are explained at some length under the head of general therapeutics.

Bicarbonate of soda water should be given freely during an emetic, so as to remove all acid from the stomach. An emetic does not exert its proper effect in the presence of acid in the stomach.

Where a prompt emetic action is desired large doses of the foregoing emetic powder may be used with perfect safety.

THIRD—TONIC PILLS.

Sulphate of quinine, 60 grains.

Vallett's mass, 40 grains.

Solid extract of gentian, 40 grains.

Solid extract of belladonna, 3 grains.

Solid extract nux vomica, 5 grains.

Piperin, 10 grains.

Mix, triturate and make into twenty pills. Dose: for an adult one pill once in four or five hours.

These pills are a *first-class tonic* and *antiperiodic*. They may be used wherever a general tonic to the system is needed. Their use has been frequently recommended in the preceding pages.

FOURTH—LIVER SYRUP.

Fluid extract cascara sagrada, 1 ounce.

Fluid extract wahoo, 1 ounce.

Fluid extract prickly ash, 6 drachms.

Fluid extract gentian, 4 drachms.

Tinct. of nux vomica, 4 drachms.

Glycerine to make 8 ounces.

Mix. Dose: a teaspoonful three or four times a day.

The above syrup is a good tonic to the liver and intestinal tract as well as a gentle laxative.

FIFTH—STOMACH BITTERS.

Tincture of nux vomica, 2 drachms.

Compound tincture of gentian, 8 drachms.

Fluid extract of dandelion, 8 drachms.

Compound tincture of cardamon, 8 drachms.

Tincture of quassia, 8 drachms.

Tincture of calisaya, 8 drachms.

Port wine to make one pint.

Mix, and take a tablespoonful before each meal.

SIXTH—FEVER DROPS.

Mother tincture of aconite (Luyties preferred) 2 drops.

Pure water, 4 ounces.

Mix. Dose: a teaspoonful every half hour to one hour, according to the urgency of the case. Aconite is the great remedy for fever, but in order to get the best effects from its use, it is necessary to give in small doses frequently repeated. Large doses of aconite paralyze the action of the heart without permanently reducing the fever. *The higher the fever, the smaller should be the dose and the more frequently repeated.*

One drop of the mother tincture of aconite to eight ounces of water is strong enough for children from one day to seven or eight years of age. In young infants only a half or one-third of a teaspoonful of this should be given once in one or two hours.

The rule governing the use of aconite is: watch the pulse and give the remedy until the pulse comes down to a natural beat and until the fever is reduced.

SEVENTH—KIDNEY CLEANSER.

Fluid extract of corn-silk, 1 ounce.

Fluid extract of queen of the meadow, 1 ounce.

Acetate of potash, 1 ounce.

Simple elixir, 2 ounces.

Mix. Dose: a teaspoonful three or four times a day, according to the urgency of the symptoms.

This prescription is excellent to throw off poison through the kidneys. It not only increases the watery, but the solid constituents of the urine. This is an excellent remedy for lame back which arises from irritation of the kidneys.

EIGHTH—CROTON OIL LINIMENT.

Croton oil, 3 drachms.

Sassafras oil, 1 drachm.

Olive oil, 5 drachms.

Mix, rub on twice a day until white mattery pustules appear. Then stop its use until the pustules have dried up. Where it causes too much inflammation, a slippery elm poultice may be applied over the inflamed surface until the inflammation subsides, then use carbolated cosmoline spread on a cloth over the sore surface until it is well, when the croton oil liniment may be again applied where necessary. This liniment is a good counter-irritant over chronic inflammations, as catarrh of the throat, bronchitis, catarrh of the gall duct, chronic peritonitis, etc.

NINTH—WINE OF PEPSIN.

Pepsin scales, 2 drachms.

Dilute hydrochloric acid, 1 ounce.

Compound tincture of gentian, 1 ounce.

Tincture of nux vomica, 3 drachms.

Port wine, to make 1 pint.

Mix. Dose : a tablespoonful.

This is an excellent remedy to stimulate and aid digestion, and may be given wherever the stomach is dyspeptic or weak.

TENTH—LAXATIVE SYRUP.

Fluid extract cascara sagrada, 1 ounce.

Tincture of nux vomica, 1 drachm,

Glycerine, 3 ounces.

Mix. Dose: one or two teaspoonfuls once or twice a day.

This is *the* remedy for constipation of the bowels. It is unnecessary to look further, as this, where persisted in, will cure nearly all eases.

ELEVENTH—BEL-CAPSIC PLASTER.

This plaster is an excellent application across the kidneys for lame back. It is also good to wear over the breast when the patient has a cold which affects the lungs. It is good to wear over any painful part where very strong applications are not required. This is the best strengthening plaster that I have ever used.

TWELFTH—CAMPHORATED DOVER'S POWDER.

Powdered opium, 10 grains.

Powdered camphor, 40 grains.

Powdered ipecac, 20 grains.

Bitartrate of potash, 160 grains.

Mix thoroughly, Beach's Am. Prac.

I regard the above as superior to the officinal Dover's Powder of the U. S. Pharmacopoeia.

The dose is from three to ten grains. The medium sized dose is five or six grains. This may be repeated once every four or five hours where necessary.

This powder may be used wherever an anodyne or diaphoretic effect is desired. Its diaphoretic action may be aided by drinking of composition tea between doses.

THIRTEENTH—ANTISPASMODIC TINCTURE.

Tincture lobelia, 12 drachms.

Tincture capsicum, 4 drachms.

Fl.ex. lady's slipper, 8 drachms.

Mix. Dose: a teaspoonful in two swallows of warm water. The dose may be repeated once every fifteen minutes until relief is obtained.

The above is a first-class remedy where a sudden and powerful stimulating and relaxing effect is required and is very safe. It is good for the relief of spasms and pain from

almost any cause. As a rule it is a speedy cure for cramps of all kinds, fainting, pains in the stomach, etc.

FOURTEENTH—ANTISPASMODIC DROPS.

Tincture of gelsemium, 1 ounce.

Tincture valereianate of ammonia, 1 ounce.

Compound spirits of ether, 1 ounce.

Compound tincture of opium and camphor, 1 ounce.

Mix. Dose: a teaspoonful in a little warm water once in from fifteen minutes to three or four hours as needed.

These drops are one of the best known agents for relieving all kinds of spasms and cramps. They also frequently act well when given for headache, neuralgia, or internal congestions of any kind. They should always be kept on hand.

FIFTEENTH—DIARRHOEA MIXTURE.

Tincture of catechu, 1 ounce.

Tincture of opium and camphor, 1 ounce.

Syrup of rhubarb and potash, 1 ounce.

Mix. Dose: one or two teaspoonfuls after each operation until the diarrhoea is checked. This formula is of sovereign efficacy, and only needs to be tried to be fully endorsed.

SIXTEENTH—COMPOUND ALTERATIVE SYRUP.

Iodide of potash, 6 drachms.

Succus alteraus, 2 ounces.

Syrup of sugar, 2 ounces.

Mix. Dose: a teaspoonful one half hour before each meal. This is an excellent blood purifier wherever one is needed.

SEVENTEENTH—COSMOLINE OINTMENT.

Cosmoline, 2 ounces.

Iodoform, $\frac{1}{2}$ drachm.

Oxide of zinc, 1 drachm.

Tanin, 15 grains.

Carbolic acid, 10 grains.

Mix thoroughly. The above ointment may be used wherever a salve is needed on any ulcer or abraded surface.

Ulcers or sores should be cleansed with warm castile soap suds before applying it. Where the ulcer is foul, add a teaspoonful of carbolic acid to each pint of water used in washing it out.

EIGHTEENTH—ITCH OINTMENT.

Hogs lard, 1 teaspoonful.

Pulverized sulphur, 1 teaspoonful.

Oil turpentine, enough to make into a thin ointment.

Rub over those parts affected with the itch, at bed time. Dry the ointment in before a fire. Two or three applications are all that are needed.

NINETEENTH—STIMULATING LINIMENT, OR PAIN KILLER.

Oil of turpentine, 1 ounce.

Sulphuric ether, 2 ounces.

Tincture capsicum, 1 ounce.

Chloroform, 1 ounce.

Aqua Ammonia, 1 ounce.

Oil of sassafras, $\frac{1}{4}$ ounce.

Alcohol to make 8 ounces.

Mix, rub on wherever a stimulating application is needed. By wetting a small piece of flannel with this and confining it to the affected surface by keeping the hand applied over it, a hot sensation of the part will soon be produced, which will be found good to relieve congestion and pain.

TWENTIETH—COUGH SYRUP.

Syrup of ipecac, 1 ounce.

Syrup of squills, 1 ounce.

Syrup of senega, 1 ounce.

Syrup of tolu, 1 ounce.

Carbonate of ammonia, $\frac{1}{2}$ ounce.

Tinct. of opium and camphor, 2 ounces.

Mix. Dose: a teaspoonful once every two or three hours as needed.

The above is a generally serviceable mixture and is safe.

TWENTY-FIRST—FOR CHAPPED HANDS, ETC.

Glycerine, 2 ounces.

Bay rum, 2 ounces.

Compound tinct. of benzoin, $\frac{1}{2}$ ounce.

Mix, and use two or three times a day over chapped surfaces. The parts should be well cleansed before the remedy is applied.

TWENTY-SECOND—TO REMOVE ODORS FROM THE FEET.

Soak the feet in warm water to which is added one ounce of common soda to each quart of water used. This may be repeated every evening while needed.

TWENTY-THIRD—ELIXIR OF BROMIDE OF POTASH.

Bromide of potash, 1 ounce.

Simple elixir, 4 ounces.

Mix. Dose: a teaspoonful and repeat in from one to three hours, according to the urgency of the symptoms. Bromide of potash may be given in water if desired, as the simple elixir is only used here in preference to disguise the taste. Bromide of potash is one of the best remedies to give when there is too much termination of blood to the brain, which may be known by a *flushed face, nervous excitability, high fever in the head*, etc. In severe cases ten drops of tincture of gelsemium may be added to each dose of the bromide.

This is also an excellent remedy to sober up a man after he has been drinking.

TWENTY-FOURTH—BEEF TEA OR BEEF ESSENCE.

Fill a glass fruit jar half full of beef steak taken from the round and cut into small pieces. Screw on the top of the fruit jar (but not too tight so that the steam will burst the jar) then place the jar in boiling water and keep it there for two or three hours. Then take out and strain and season with salt and pepper to suit the taste.

This is one of the best forms of nourishment during fever and wasting diseases where the stomach is too weak to digest solid food. It may be injected into the bowels where the stomach will not retain it

Two or three tablespoonfuls of this may be given once in two or three hours.

TWENTY-FIFTH—BEEF JUICE.

Put a piece of beef steak (taken from the round) of suitable size and put it into a hot spider and allow it to remain for twenty seconds and then turn it and allow it to cook as long on the other side, then take it out and put it into a lemon squeezer and squeeze the juice out. It may be used for the same purpose and in the same way as beef tea. Season to suit the taste.

HOUSEHOLD MEDICINE CHEST

FOR THE USE OF FAMILIES, PLANTATIONS, HOTELS, STEAM
BOATS, SHIPS, TOURISTS, ETC.

For the convenience of the purchasers of this work, I am putting out a family medicine chest which contains such remedies as will enable the patient to be prepared for sudden emergencies as they arise. By having appropriate remedies at hand, many a life may be saved, which would otherwise be lost while waiting for a physician to arrive, and the Author believes that if the remedies which are contained in the medicine chest are intelligently used, that the patient may be tided over any emergency within the reach of medicine, at least until a physician is secured.

The medicines with which this case is furnished are all of the most superior quality. The medicine chest will be found to be worth many times its cost to those who purchase it, not only in saving life and health, but doctors' bills as well. The small price of the chest of medicines places it within the reach of nearly every family. Parties desiring to purchase the medicine chest may secure them of my agents.

Price of the family medicine chest, filled with medicine and fully furnished, \$10.00.

The medicine chest contains the following:

Mother tincture aconite.

Diarrhoea mixture.

Cough syrup.

Quinine.
Camphorated dover's powder.
Anti-spasmodic drops.
Anti-spasmodic tincture.
Bromide of potash elixir.
Kidney cleanser.
Carbolic acid.
Oil of turpentine.
Composition powder.
Worm syrup.
Tonic pills.
Court plaster.
Cosmoline ointment.
Prepared mustard draughts.
Pulverized lobelia seed.
Emetic powder.
Spirits of camphor.
Monsell's Solution.
Medicine glass.
Medicine dropper.
Ear syringe.

The medicine chest has an elegant mahogany finish, and is furnished with fine glass stoppered bottles, so that the medicines will keep fresh for an indefinite period of time, It can be shipped to any address with perfect safety.

The bottles are all carefully labeled.

SIZE OF DOSE.

Unless otherwise specified, in any given case, the doses given in this work are for adults and when given to children the doses must be reduced. A table of doses is given on page 63. I hope that my readers will bear the above fact in mind and carefully consult the table of doses.

ACKNOWLEDGMENTS.

In closing this work, I wish to acknowledge my indebtedness for many valuable ideas derived from the writings of the following justly celebrated medical men .

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J. C. Wilson.

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Allan McLane Hamilton.

P. S. Conner.

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